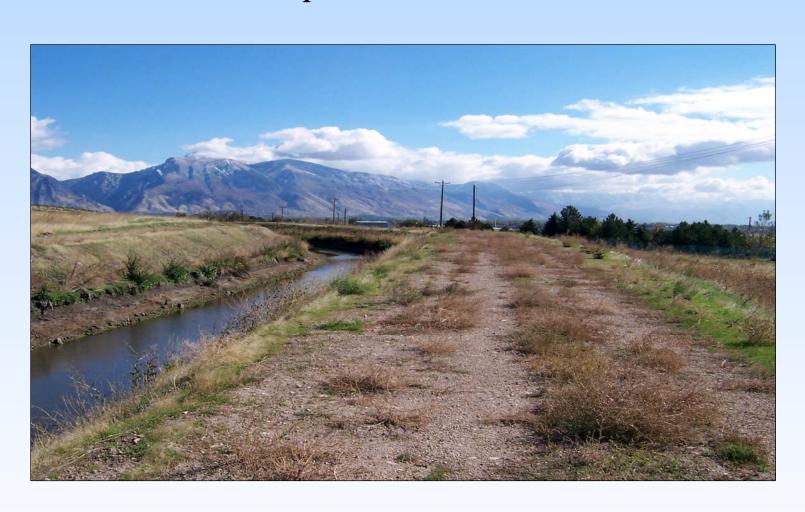
# Draft Environmental Assessment

# Provo Reservoir Canal Trail UDOT Project F-LC49(106); PIN 6527

September 2008









#### **Provo Reservoir Canal Trail**

UDOT Project Number: F-LC49(106)
PIN: 6527
CID: 5257701D

The project is located in Utah County, Utah. The proposed federal action prompting preparation of this Environmental Assessment is use of FHWA funds appropriated by Congress to construct a trail along the Provo Reservoir Canal corridor. In conjunction with use of federal funds, the U.S. Department of Interior, Bureau of Reclamation must determine whether and under what conditions to authorize trail construction on federal lands or easements.

#### **Draft Environmental Assessment**

### September 2008

Submitted pursuant to 42 U.S.C 4332(2)(c) and 49 U.S.C. 303 by the Federal Highway Administration (FHWA), U.S. Department of Interior, Bureau of Reclamation, and the Utah Department of Transportation (UDOT)

The following persons may be contacted for additional information about this document:

Anthony Sarhan FHWA, Utah Division 2520 W 4700 S, Suite 9A Salt Lake City, UT 84118 Telephone: (801) 963-0078

Beverley Heffernan Bureau of Reclamation, Provo Area Office 302 E 1860 S Provo, UT 84606 Telephone: (801) 379-1161 Philip Huff, Project Manager Utah Department of Transportation, Region 3 658 N 1500 W Orem, UT 84057 Telephone: (801) 227-8043







# Table of Contents

Sumn	nary		S-1
1.0	Purpo	ose and Need	1-1
1.1	_	posed Action	
1.2		pose of and Need for the Proposed Action	
1.3		nd Agencies	
1.4		cisions To Be Made	
1.5	Bac	ckground and History	1-5
1	.5.1	Description of the Provo Reservoir Canal	
1.6	Rel	ated and Ongoing Actions	
1	.6.1	Title Transfer of Provo Reservoir Canal, Salt Lake Aqueduct, and	
		Pleasant Grove Property Provo River Project	1-8
1	.6.2	Contract No. 04-WC-40-8950	1-8
1	.6.3	Provo Reservoir Canal Increased Capacity EA	1-8
1	.6.4	Provo Reservoir Canal Enclosure	
1	.6.5	Water Management Improvement Program – CUPCA Section 207.	1-9
1	.6.6	Utah Lake System (Central Utah Project)	
1	.6.7	FHWA/UDOT SR-92; I-15 to SR-146 EA	1-9
1.7	Reg	gulatory, Legislative, or Policy Requirements	1-10
1	.7.1	Provo River Project Transfer Act, PL 108-382, Enacted	
		October 30, 2004	1-10
1	.7.2	Endangered Species Act of 1973 (16 U.S.C. 1532 et seq.)	1-10
1	.7.3	National Historic Preservation Act	1-11
1	.7.4	Applicable Permit and Consultation Requirements	1-11
1.8	Do	cuments Incorporated by Reference	
1	.8.1	Provo Reservoir Canal Enclosure Environmental Assessment and	
		Finding of No Significant Impact	1-12
1	.8.2	Title Transfer of Provo Reservoir Canal, Salt Lake Aqueduct, and	
		Pleasant Grove Property Provo River Project Environmental	
		Assessment and Finding of No Significant Impact	1-13
1	.8.3	Provo Reservoir Canal Greenway and Trail Plan	
1.9	Pur	pose and Contents of this Environmental Assessment	
		-	
2.0	Descr	ription of the Proposed Action and Alternatives	2-1
2.1		sumptions	
2.2	Ind	ependent Utility and Logical Termini	2-1
2.3	Des	scription of the No Action Alternative	2-2
2.4	Des	scription of the Preferred Alternative (Proposed Action)	2-2
2	2.4.1	Overview	2-2
2	2.4.2	Proposed Action Features	2-6
	2.4.2.	Segment 1: Lehi	2-6
	2.4.2.	2 Segment 2: Tri-City	2-8
	2.4.2.	3 Segment 3: Pleasant Grove	2-10
	2.4.2.	4 Segment 4: Lindon	2-12

2.4.2	2.5 Segment 5: Orem	2-14
2.5 A	lternatives Considered but Eliminated from Further Analysis	2-16
	cope of the Environmental Analysis	
2.6.1	± •	
2.6.2	·	
2.6.2	<u> </u>	
2.6.2	<u> </u>	
2.6.2	2.3 Safety and Noise	2-18
2.6.2	2.4 Transportation	2-18
2.6.2	2.5 Socioeconomics	2-18
2.6.2	2.6 Recreation	2-18
2.6.2	2.7 Environmental Justice	2-18
2.6.2	2.8 Visual Resources	2-18
2.6.2	2.9 Wildlife	2-18
	ected Environment and Environmental Consequences	
	ummary of Resources Not Analyzed in Detail	
	ummary of Resources Analyzed in Chapter Three	
	and Use and Land Ownership	
3.3.1		
3.3.2		
3.3.2	2.1 Land Ownership	
	2.2 Land Use	
3.3.3	1 3	
	3.1 No Action Alternative	
3.3.3	T	
3.3.4	Mitigation Measures	
	ir Quality	
3.4.1	Introduction	
3.4.2		
3.4.3	1 2	
	3.1 No Action Alternative	
3.4.3	3.2 Proposed Action Alternative	
3.4.4	$\epsilon$	
	afety and Noise	
3.5.1	Introduction	
3.5.2		
	2.1 Fencing	
3.5.3	Impact Analysis	
3.5.3		
3.5.3	T	
3.5.4	Mitigation Measures	
	ransportation	
3.6.1	Introduction	
3.6.2	Affected Environment	
3.6.3	Impact Analysis	3-12

3.6.3.1 No Action Alternative	3-12
3.6.3.2 Proposed Action Alternative	3-12
3.6.4 Mitigation Measures	3-13
3.7 Socioeconomics	3-13
3.7.1 Introduction	3-13
3.7.2 Affected Environment	3-13
3.7.2.1 Recreation Resources	3-14
3.7.2.2 Roadway/Trail Crossings (Community Cohesion)	3-15
3.7.2.3 Operation and Maintenance of the PRC and Other Facilities	
within the ROW	3-15
3.7.3 Impact Analysis	3-16
3.7.3.1 No Action Alternative	
3.7.3.2 Proposed Action Alternative	3-16
3.7.4 Mitigation Measures	3-17
3.8 Environmental Justice	3-17
3.9 Visual Resources	
3.9.1 Introduction	3-18
3.9.2 Affected Environment	3-18
3.9.3 Impact Analysis	3-19
3.9.3.1 No Action Alternative	
3.9.3.2 Proposed Action Alternative	
3.9.4 Mitigation Measures	
3.10 Wildlife Resources	
3.10.1 Introduction	
3.10.2 Affected Environment	
3.10.3 Impact Analysis	
3.10.3.1 No Action Alternative	
3.10.3.2 Proposed Action Alternative	
3.10.4 Mitigation Measures	
3.11 Unavoidable Adverse Impacts	
3.12 Cumulative Impacts	
3.12.1 Introduction	
3.12.2 Interrelated Projects	
3.12.2.1 Past Project	
3.12.2.2 Current Projects	
3.12.2.3 Foreseeable Future Actions	
3.12.3 Impact Analysis	
3.13 Short-Term Use of the Environment Versus Long-Term Productivity	
3.14 Irreversible and Irretrievable Commitment of Resources	3-26
4.0 Consultation, Coordination, and Public Involvement	4-1
4.1 Description of the NEPA Process	
4.2 Scoping	
4.3 Draft Environmental Assessment Public Review and Opportunity	• •
To Comment	4-3
4.4 Consultation with Other Agencies	

4.5	Environmental Assessment Distribution	4-4
5.0	Mitigation Commitments	5-1
5.1	Land Use and Land Ownership	
5.2	Air Quality	
5.3	Safety and Noise	5-1
5.4	Transportation	
5.5	Socioeconomics	
5.6	Visual Resources	5-2
5.7	Wildlife Resources	5-3
6.0	List of Preparers	6-1
7.0	References	7-1

# Appendices

**Appendix A – Cultural and Native American Consultation** 

Appendix B – Draft Provo River Canal Rights-of-Way Greenway Interlocal Agreement

# List of Tables

Table 1.1	Permits and Consultation Requirements for the Proposed Action
Table 2.1	Issues Eliminated from Further Study
Table 3.1	Proposed Trail Underpass Locations
Table 3.2	Provo Reservoir Canal Street Crossings
Table 4.1	Issues that were Raised during Scoping
List of Fi	igures
Figure 1.1	Provo Reservoir Canal Trail EA Project Area
Figure 1.2	Provo Reservoir Canal Feature Locations within Project Area
Figure 2.1	Provo Reservoir Canal Trail Segment Overview Map
Figure 2.2	View of an Underpass and an At-Grade Crossing From the Trail Corridor
Figure 2.3	View of a Type A Trailhead from the Trail Corridor
Figure 2.4	Provo Reservoir Canal Trail Segment 1: Lehi (Frame 1 of 5)
Figure 2.5	Provo Reservoir Canal Trail Segment 2: Tri-City (Frame 2 of 5)
Figure 2.6	Provo Reservoir Canal Trail Segment 3: Pleasant Grove (Frame 3 of 5)
Figure 2.7	Provo Reservoir Canal Trail Segment 4: Lindon (Frame 4 of 5)
Figure 2.8	Provo Reservoir Canal Trail Segment 5: Orem (Frame 5 of 5)
Figure 3.1	National Ambient Air Quality Standards Areas of Non-attainment and Maintenance in Utah
Figure 3.2	Example of Venting/Operations Structure that Would be Visible throughout the Corridor
Figure 3.3	Example of a Trailhead
Figure 3.4	Overhead views of hard and soft surface trails and an Example of a Trail/Street Crossing

# List of Acronyms

ACHP Advisory Council on Historic Preservation

ADA Americans with Disabilities Act
BMPs Best Management Practices

CAA Clean Air Act

CEQ Council on Environmental Quality

CFR Code of Federal Regulations

cfs Cubic Feet Per Second

CMAQ Congestion Mitigation and Air Quality

CO Carbon monoxide

CSS Context Sensitive Solutions

CUPCA Central Utah Project Completion Act
CUWCD Central Utah Water Conservancy District

dB Decibel

DOI U.S. Department of Interior
DOT Department of Transportation
EA Environmental Assessment

EIS Environmental Impact Statement EPA Environmental Protection Agency

ESA Endangered Species Act

FHWA Federal Highway Administration FONSI Finding of No Significant Impact

HOA Home Owners Association

JVWCD Jordan Valley Water Conservancy District MAG Mountainland Association of Governments

MOA Memorandum of Agreement MSAT Mobile Source Air Toxins

MWDSLS Metropolitan Water District of Salt Lake and Sandy

N/A Not Applicable

NAAQS National Ambient Air Quality Standards
NEPA National Environmental Policy Act
NHPA National Historic Preservation Act

NO Nitric oxideNO<sub>2</sub> Nitrogen dioxideNOx Nitrogen oxides

NRHP National Register of Historic Places

 $O_3$  Ozone

PM Particulate matter
PRC Provo Reservoir Canal

PRCT Provo Reservoir Canal Trail

PRP Provo River Project

PRPTA Provo River Project Transfer Act
PRWUA Provo River Water Users Association

ROW Right-of-way sf Square feet

SHPO State Historical Preservation Office

SLA Salt Lake Aqueduct

SOx Sulfur oxides SR State Route

STIP Statewide Transportation Improvement Program

TBD To Be Determined

TIP Transportation improvement plan UDAQ Utah Division of Air Quality

UDEQ Utah Department of Environmental Quality

UDOT Utah Department of Transportation

ULS Utah Lake System
UTA Utah Transit Authority

VOCs Volatile Organic Compound(s)

#### Provo Reservoir Canal Trail Environmental Assessment

**Proposed Action:** The proposed federal action prompting preparation of this Environmental Assessment (EA) is use of Federal Highway Administration (FHWA) funds appropriated by Congress to construct a trail along the Provo Reservoir Canal (PRC) corridor. In conjunction with use of federal funds, the U.S. Department of Interior, Bureau of Reclamation (Reclamation) must determine whether and under what conditions to authorize trail construction on federal lands or easements.

With PRWUAs permission, Utah County and several cities in Utah County including Orem, Lindon, Pleasant Grove, Lehi, American Fork, Cedar Hills, and Highland propose to construct a non-motorized trail on top of the PRC once it has been enclosed. The trail would begin at 800 North in Orem and continue to the State Route (SR) 92 crossing in Lehi and would be approximately 14.25 miles in length.

**Type of Document:** Draft Environmental Assessment

Lead Agencies: U.S. Department of Interior, Bureau of Reclamation, Provo Area Office

Federal Highway Administration Utah Department of Transportation

**Cooperating Agencies:** None

Stakeholders on Project Team: Utah County

Provo River Water Users Association Central Utah Water Conservancy District

#### **Contact Persons:**

Beverley Heffernan	Philip Huff	Anthony Sarhan
Bureau of Reclamation	UDOT Region 3	Federal Highway Administration
Provo Area Office	658 N 1500 W	2520 W 4700 S, Suite 9A
302 E 1860 S	Orem, UT 84057	Salt Lake City, UT 84118
Provo, UT 84606	(801) 227-8043	(801) 963-0078
(801) 379-1161		

**Abstract:** This document is the Draft Environmental Assessment (EA) for the proposed Provo Reservoir Canal Trail Project (Proposed Action). This EA is required by the National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) regulations to document and analyze impacts of the project on the quality of the human environment. It covers impacts of the Proposed Action and the No Action Alternative.

The Provo River Water Users Association (PRWUA) will enclose the entire length of the Provo Reservoir Canal (PRC) from the Murdock Diversion in Provo Canyon to the Point of the Mountain near the Utah County/Salt Lake County boundary, a distance of approximately 21.5 miles. Once the PRC has been enclosed, the PRWUA expects to

allow construction of a trail on top of the enclosed canal. The trail would be constructed by Utah County and several Utah County cities (Orem, Lindon, Pleasant Grove, Lehi, American Fork, Cedar Hills, and Highland). They propose to construct a non-motorized trail on the enclosed canal from 800 North in Orem to the State Route (SR) 92 crossing in Lehi, a distance of 14.25 miles. Federal funds appropriated to the Federal Highway Administration (FHWA) by congress would be used to build the trail, as well as some funds from Utah County and local cities along the trail.

The PRC is on land owned in fee title or easement by the Bureau of Reclamation (Reclamation). PRWUA operates and maintains the PRC under an agreement with Reclamation. As this project is on federally owned property and has federal transportation funds, an EA is required for this action.

The Proposed Action would have no effect on the following resources: cultural, Indian Trust Assets, geology, soils, topography, hazardous waste, paleontological, water rights or delivery systems, fisheries, threatened and endangered species, water quality, or wetlands. The possible effects of the proposed action on the following resources are described in greater detail in the EA: air quality, wildlife, visual resources, safety and noise, transportation, socioeconomics (including recreation), environmental justice, and land use and land ownership.

#### 1.0 PURPOSE AND NEED

This document is the Draft Environmental Assessment (EA) for the proposed Provo Reservoir Canal Trail Project (Proposed Action). This EA is required by the National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) regulations to document and analyze impacts of the project on the quality of the human environment. It covers impacts of the Proposed Action and the No Action Alternative. This EA examines the Proposed Action and provides sufficient evidence and analysis for determining whether or not to prepare an Environmental Impact Statement (EIS).

The Provo River Water Users Association (PRWUA) will enclose the entire length of the Provo Reservoir Canal (PRC) from the Murdock Diversion in Provo Canyon to the Point of the Mountain near the Utah County/Salt Lake County boundary, a distance of approximately 21.5 miles. Once the PRC has been enclosed, the PRWUA expects to allow construction of a trail on top of the enclosed canal. The trail would be constructed by Utah County and several Utah County cities (Orem, Lindon, Pleasant Grove, Lehi, American Fork, Cedar Hills, and Highland). They propose to construct a non-motorized trail on the enclosed canal from 800 North in Orem to the State Route (SR) 92 crossing in Lehi, a distance of 14.25 miles. Federal funds appropriated to the Federal Highway Administration (FHWA) by congress would be used to build the trail, as well as some funds from Utah County and local cities along the trail. The estimated cost of trail construction is \$14,687,500 (Psomas, 2007).

The PRC is on land owned in fee title or easement by the Bureau of Reclamation (Reclamation). PRWUA operates and maintains the PRC under an agreement with Reclamation. There has been a previous EA (Title Transfer of Provo Reservoir Canal, Salt Lake Aqueduct, and Pleasant Grove Property EA) completed which allows Reclamation to transfer title of the property over to a non-federal agency. The title transfer for the PRC has not yet occurred, but is expected to happen before enclosure of the PRC begins. As this project is on federally owned property and has federal transportation funds, an EA is required for this action.

This chapter describes the Proposed Action, the Purpose and Need for the Proposed Action, Lead and Cooperating Agencies, related and ongoing projects, and regulatory requirements.

# 1.1 Proposed Action

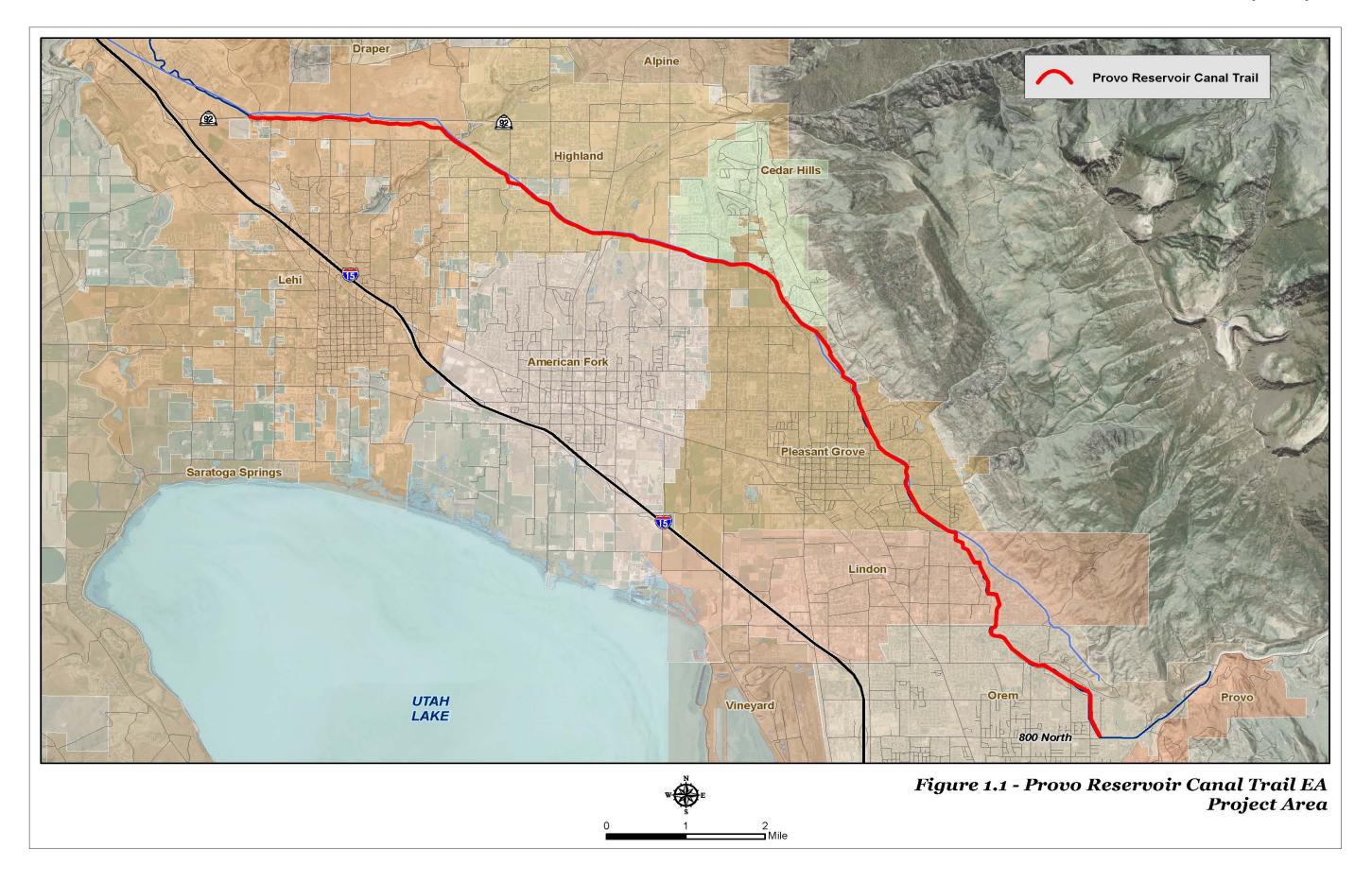
The proposed federal action prompting preparation of this EA is use of FHWA funds appropriated by Congress to construct the trail along the Provo Reservoir Canal corridor. In conjunction with use of federal funds, Reclamation must determine whether and under what conditions to authorize trail construction on federal lands or easements.

With PRWUAs permission, Utah County and several cities in Utah County including Orem, Lindon, Pleasant Grove, Lehi, American Fork, Cedar Hills, and Highland propose to construct a non-motorized trail on top of the PRC once it has been enclosed. The trail would be approximately 14.25 miles long (See **Figure 1.1**). The trail would begin at 800 North in Orem and continue to the SR 92 crossing in Lehi.

There would be 2 use surfaces constructed on top of the enclosed canal. One surface would be paved and could be used by bicyclist, pedestrians, or other people that want to use a hard surface. The other surface would be constructed from softer materials and could be used by runners, equestrians, and others who wish to use a soft trail. The typical width of the PRC right of way (ROW) is approximately 100 feet. The trail would meander within the ROW; sometimes the 2 surfaces would be very close to each other, while other times the surfaces may be separated by 20 or 30 feet.

Once the trail has been constructed, PRWUA would turn over maintenance of the trail and trail facilities to Utah County and the municipalities. PRWUA would still maintain and operate the canal and any canal facilities within the ROW to the PRC. The trail would be limited to non-motorized use including, walking, running, bicycling, equestrian, and other non-motorized uses. Maintenance vehicles would be allowed to enter the non-motorized use area.

Chapter 1 – Purpose and Need



#### 1.2 Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to build a trail with two use surfaces on top of the enclosed PRC within the existing ROW. The trail would be built for non-motorized activities including, but not limited to, pedestrian, bicycling, and equestrian use.

The trail (hard and soft) would allow public access to the canal ROW, would provide needed recreational facilities for members of the community surrounding the canal and for other members who would travel to the area to use the trail. The trail would create links between other existing and proposed trail systems. The communities have expressed an interest in having a trail within the canal corridor for over 15 years.

PRWUA has also worked with its congressional delegation to obtain funding for trail improvements for the canal ROW once enclosure is completed. PRWUA has obtained \$11.75 million in federal funding, from the earmarked funds administered by FHWA and Utah Department of Transportation (UDOT) to help construct the trail. The funding will require a 20 percent match from the cities and Utah County. The construction of the proposed trail would create a useable open space area for many residents. The trail would connect several communities and would provide a non-motorized use trail for recreation as well as for travel to work or shop.

The proposed trail would also make connections to other existing and proposed trails along the length of the project area. The proposed trail would connect to the Mountainland Association of Governments (MAG) Provo River Parkway Trail at 800 North in Orem, the Utah Southern Rail Trail and several local trails. These connections are discussed in greater detail in Chapter 2.

# 1.3 Lead Agencies

The UDOT, Reclamation, and FHWA, are joint leads on this EA.

#### 1.4 Decisions To Be Made

FHWA must determine whether to authorize UDOTs use of federal funds for this project. Reclamation must determine whether to authorize trail construction on federal lands or easements. These decisions will be based upon whether the trail construction is feasible, in the public interest, will not impact the operation of the PRC or nearby Central Utah Project (CUP) facilities, and is environmentally permissible.

## 1.5 Background and History

### 1.5.1 Description of the Provo Reservoir Canal

The original PRC was built in the early 1900s by the Provo Reservoir Company. The PRC was used to convey water from the Provo River and water that had been stored in reservoirs on the Upper Provo River. The term "Provo Reservoir" originates from natural lakes in the High Uintas that had been modified for storage. There is no body of water known by the name of "Provo Reservoir."

About 1940, the United States purchased the PRC from the Provo Reservoir Company and enlarged the PRC as part of the Provo River Project (PRP). The Provo Reservoir Company is now known as the Provo Reservoir Water Users Company, and still has contractual rights to approximately 1/3 of the capacity of the PRC. After the PRC was enlarged by Reclamation, management responsibilities were assigned to PRWUA. The PRWUA is a separate and distinct association from the Provo Reservoir Water Users Company.

The PRC takes water from the Provo River at the Murdock Diversion Dam, about 7 miles downstream from Deer Creek Dam. The 21.5-mile-long canal serves irrigated acreage within the Deer Creek Division. The PRC runs northwest along the foothills of northern Utah County to the Point of the Mountain Water Treatment Plant near the Utah County/Salt Lake County boundary. The Jordan Narrows Siphon and Pumping Plant furnish water from the PRC and Jordan River to lands on the west side of Utah Lake and the Jordan River. The South Lateral delivers water supplies from the Jordan Narrows pump to the area south of the pump and west of the Jordan River.

The PRC delivers irrigation and municipal and industrial water throughout its entire length. Under terms of the 1936 contract between the U.S. Department of Interior (DOI) and PRWUA that provided for the construction of the Deer Creek Division of the PRP (this also included the construction of Deer Creek Dam), operation and maintenance responsibilities were transferred to the PRWUA. The 1936 contract also provided for the repayment of construction costs and certain operational and maintenance costs.

At present, the canal is open along most of its length. Enclosure of the canal must occur before trail construction can begin. Water is delivered along the canal's entire length. At the Point of the Mountain Facility, the PRC delivers water into pipelines that feed irrigation canals and/or the Jordan Valley Water Treatment Plant of the Jordan Valley Water Conservancy District (JVWCD) and the Metropolitan Water District of Salt Lake and Sandy (MWDSLS). The PRC started to deliver water to the Point of the Mountain Water Treatment Plant of the MWDSLS. Water delivered through the PRC includes PRP storage rights in Deer Creek Reservoir as well as direct flow and storage rights of the Provo Reservoir Water Users Company. Water is generally delivered in the PRC from April 15 to October 15, the normal irrigation season.

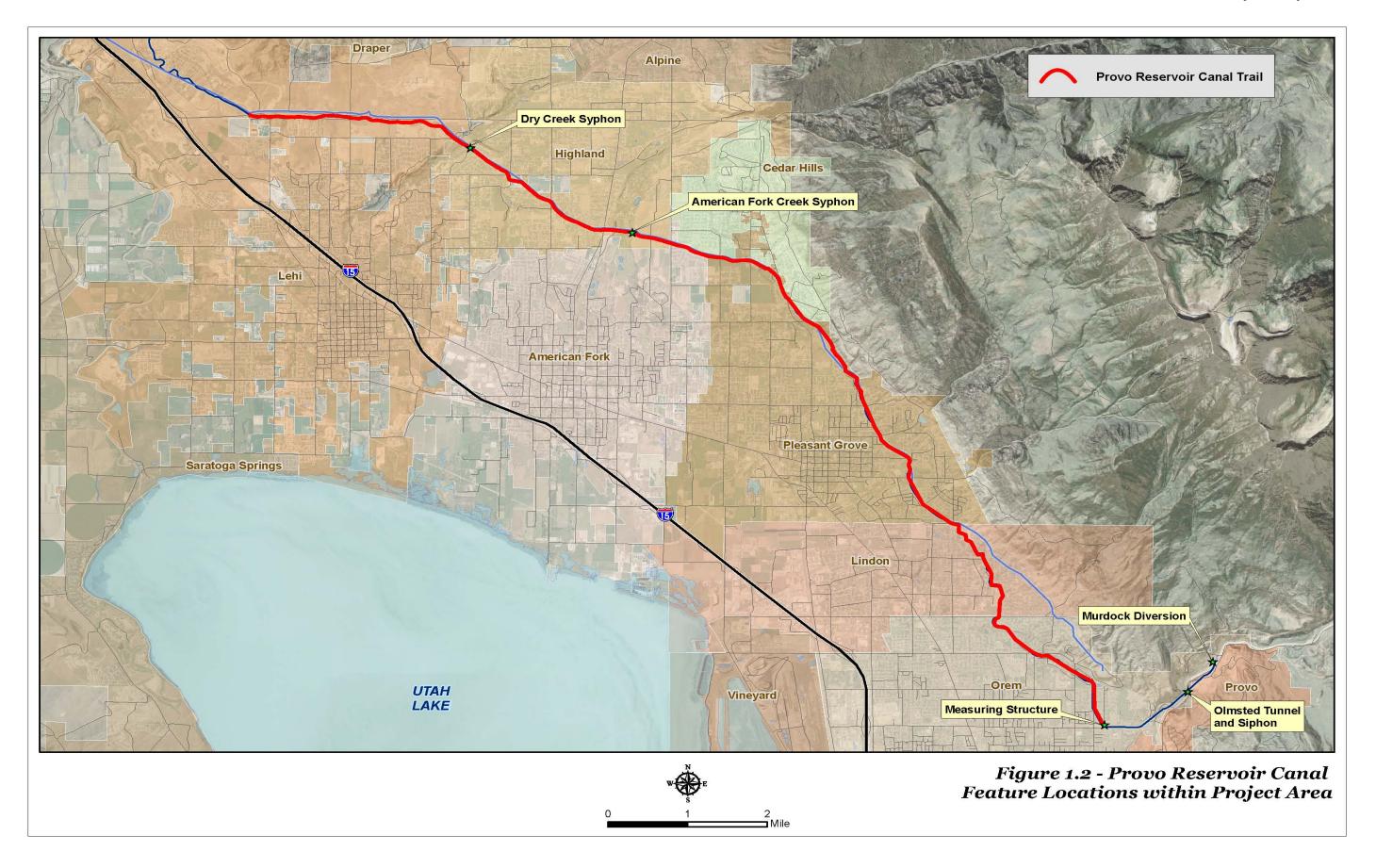
The PRC system consists of the following main features (See **Figure 1.2**):

• Murdock Diversion Dam. This diversion structure, approximately seven miles below Deer Creek Dam, near the mouth of Provo Canyon, allows PRWUA to divert flows from the Provo River into the PRC. The diversion consists of a 22-foot high concrete ogee weir across the river to back up flows, a bypass channel with radial

gate control, and the canal intake with screens and radial control gates. The diversion is capable of diverting up to 550 cfs into the PRC. The diversion was completed in 1950.

- Canal. The canal traverses approximately 21.5 miles from the Murdock Diversion Dam at the mouth of Provo Canyon to the Jordan Narrows at the Utah County/Salt Lake County line. The canal is mostly earth-lined, but some sections are concrete lined. The concrete-lined sections total approximately 21,000 feet. The typical bottom width is 16-18 feet with a typical water depth of 4 to 5 feet.
- Olmsted Tunnel and Siphon. This 5,200-foot long, 96-inch diameter tunnel and pipeline carries water from just below the Murdock Diversion at the mouth of Provo Canyon to the canal at 800 North in Orem.
- American Fork Siphon. This 1,285-foot long, 96-inch diameter siphon crosses under American Fork Creek near the City of American Fork.
- **Measuring Structures.** Flows are measured at 800 North in Orem, and at the American Fork Parshall flume near the American Fork siphon, and at the Sylvan Parshall flume north of SR-92.
- **Dry Creek Siphon.** This 1,185-foot long, 96-inch diameter siphon crosses under Dry Creek near the City of Lehi.
- **I-15 Siphon.** This 1,200-foot, 90-inch diameter siphon crosses under I-15 near the point of the mountain.
- **Point of the Mountain Facilities.** These facilities include: (These facilities are north of our project area, and are not shown in **Figure 1.2**)
  - o Intake screens
  - Control gates
  - o A 69-inch diameter siphon that delivers water under the Jordan River channel to the Jacob and Welby Canals
  - A 48-inch diameter penstock that drives the Jordan Narrows turbine/pump facility (completed in 1950), which delivers water to the Utah Lake Distributing Company Canals
  - o An emergency overflow to the Jordan River

Chapter 1 – Purpose and Need



# 1.6 Related and Ongoing Actions

This section describes laws and projects that may affect the proposed action. Where applicable, these laws and projects are factored into the analysis of potential impact under the alternatives, particularly in the cumulative impacts analysis.

# 1.6.1 Title Transfer of Provo Reservoir Canal, Salt Lake Aqueduct, and Pleasant Grove Property Provo River Project

Pursuant to PL 108-382, Reclamation has completed title transfer to the MWDSLS for the Salt Lake Aqueduct. Reclamation is working with its federal partners, PRWUA, MWDSLS, Central Utah Water Conservancy District (CUWCD), JVWCD, and Provo Reservoir Water Users Company on title transfer of the PRC and Pleasant Grove Property. An EA analyzing this proposed action was completed and a Finding of No Significant Impact was issued in October 2004.

#### 1.6.2 Contract No. 04-WC-40-8950

Contract number 04-WC-40-8950 is an agreement between the U.S., PRWUA, and MWDSLS, to transfer certain lands and facilities of the PRP. This agreement was signed on November 23, 2004. This agreement establishes the terms of the proposed transfer, including the process of the transfers, payment obligations, environmental compliance, and other agreements that must be executed and deemed acceptable by the Secretary to complete the title transfer process.

## 1.6.3 Provo Reservoir Canal Increased Capacity EA

Reclamation has recently been asked to do a new EA on whether to authorize the enclosed canal to have an increased capacity, from 550 cubic feet per second (cfs) to 623 cfs, from the point of the future Utah Lake System (ULS) pipeline tie-in northward to the canal terminus (approximately 800 North in Orem). The EA is being prepared by the Bureau of Reclamation, Provo Area Office.

#### 1.6.4 Provo Reservoir Canal Enclosure

Enclosure of the PRC was analyzed in an EA and authorized in a Finding of No Significant Impact (FONSI) dated April 30, 2003. Construction of a trail along the PRC ROW cannot proceed unless or until the canal is enclosed. Whether or not Reclamation is the owner of the PRC after it is enclosed, the federal government will still retain access rights along the PRC corridor for operation and maintenance of other federal facilities. The Provo River Project Title Transfer Agreement states: "The Secretary may, at the time of title transfer and after appropriate consultation with MWDSLS and PRWUA, except and reserve to the United States perpetual easements to and rights of ingress and egress on, over, or across the PRC and the SLA as the Secretary may determine are reasonable and necessary for continued access, use, operation, and maintenance of lands, and the continued use, operation, maintenance, repair, improvement, construction, reconstruction, or replacement of the PRP and CUP facilities. Such reserved easements shall not allow unreasonable interference with the use,

operation, maintenance, repair, improvement, construction, reconstruction, or replacement of the PRC or the SLA." Additionally, if PRWUA owns the PRC, operation and maintenance access along the entire length of the canal would still be necessary. This corridor is used for two federal projects with four parties holding repayment contracts with the United States (U.S.). CUWCD operates, maintains, and replaces the Alpine Aqueduct Reach 3 (A3) as a CUP facility in this corridor. JVWCD operates, maintains, and replaces the Jordan Aqueduct Reach 4 (J4) in this corridor. PRWUA operates, maintains, and replaces the PRC. CUWCD holds U.S. repayment contracts on A3 and J4. JVWCD holds a repayment contract on J4 as does MWDSLS. PRWUA holds the repayment contract for the PRC. The PRC corridor as used for CUP is not secondary to PRP operations. Therefore, trail design, construction, operation and use would need to accommodate ongoing needs to maintain and operate water delivery structures.

#### 1.6.5 Water Management Improvement Program – CUPCA Section 207

This program, administered by the CUWCD, provides federal funding for water conservation projects. Federal money is provided on a cost share basis to public and private individuals that demonstrate need and appropriate planning on water conservation projects. Applications are reviewed by a prioritization committee and ranked to determine which projects are funded. Projects that provide a benefit to the environment, particularly threatened or endangered species, instream flows, or other environmental benefits receive credit in the ranking procedure. An application has been filed for Central Utah Project Completion Act (CUPCA) Section 207 funding to implement the PRC enclosure project. However, a Section 207 decision has not been made and the application may be subject to changes. Its potential effects are not considered in this analysis, and a separate analysis for NEPA compliance will be required. If Section 207 funds were used, saved water would be made available to CUWCD who in turn would make the water available to the Secretary of the Interior for instream flow purposes and to assist in the recovery of the endangered June sucker.

# 1.6.6 Utah Lake System (Central Utah Project)

One component of the ULS will include connecting a new pipeline to the existing PRC at 800 North. This is expected to occur by 2021 and could necessitate a change in capacity of the PRC from 800 North northward to the canal terminus at the Point of the Mountain. The ULS EIS can be accessed at:

http://www.cuwcd.com/cupca/projects/uls/environmentalimpact.htm

General information about the ULS can be accessed at:

http://www.cuwcd.com/cupca/projects/uls/index.htm

#### 1.6.7 FHWA/UDOT SR-92; I-15 to SR-146 EA

UDOT and FHWA are proposing transportation improvements on SR-92 from I-15 to SR-146. SR-92 is currently a two to four lane facility. Proposed improvements being evaluated in the EA include the addition of express lanes and widening of the existing facility. The Jordan Aqueduct, Alpine Aqueduct, and the PRC traverse through the project corridor.

## 1.7 Regulatory, Legislative, or Policy Requirements

This section describes laws and policies with which Reclamation, UDOT, and FHWA must comply. **Table 1.1** at the end of this section summarizes permit requirements and consultation requirements that pertain to the proposed action.

# 1.7.1 Provo River Project Transfer Act, PL 108-382, Enacted October 30, 2004

A bill entitled the Provo River Project Transfer Act (PRPTA) was introduced into the U.S. House of Representatives on October 29, 2003. As enacted on October 30, 2004, PL 108-382 directs the Secretary of Interior to convey certain lands and facilities of the Provo River Project. PL 108-382 specifies that transfer comply with NEPA, the Endangered Species Act (ESA), and all other environmental and cultural resource laws. It also specifies that the PRWUA and MWDSLS shall pay to the Department of Interior (DOI) the net present value of their remaining debt obligations, including miscellaneous future revenue streams of the properties.

#### 1.7.2 Endangered Species Act of 1973 (16 U.S.C 1532 et seq)

The ESA of 1973 provides for the protection of ecosystems upon which threatened and endangered species of fish, wildlife, and plants depend.

#### The ESA:

- Authorizes the determination and listing of species as endangered and threatened;
- Prohibits unauthorized taking, possession, sale, and transport of endangered species;
- Provides authority to acquire land for the conservation of listed species, using land and water conservation funds;
- Authorizes establishment of cooperative agreements and grants-in-aid to states that
  establish and maintain active and adequate programs for endangered and threatened
  wildlife and plants; and
- Authorizes the assessment of civil and criminal penalties for violating the ESA or regulations.

All persons, organizations, and agencies are subject to certain requirements of the ESA. Section 7 requires federal agencies to consult with the U.S. Fish and Wildlife Service regarding major actions that may affect threatened and endangered species or their habitat, while non-federal entities are not required to conduct this consultation. Section 9 of the ESA specifically prohibits the taking of any endangered species of fish or wildlife. The term "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." All parties are subject to Section 9. The ESA implications for this project are discussed further in Chapter 2.

#### 1.7.3 National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR 800, require that federal agencies take into account the effects of their actions on significant cultural resources. The regulations include steps to identify, evaluate, and determine the effects to cultural resources. Through consultation with the State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), and interested Indian tribes and public, the goal is to seek ways to avoid, minimize, or mitigate any adverse effects on significant cultural resources. The Salt Lake Aqueduct (SLA) and PRC are eligible for listing on the National Register of Historic Places (NRHP). This is discussed further in Chapter 2.

#### 1.7.4 Applicable Permit and Consultation Requirements

Coordination with other government agencies is required by certain laws, and was deemed necessary to completely analyze the impacts of the proposed action. Permits and consultation requirements are described in **Table 1.1**.

**Table 1.1 - Permits and Consultation Requirements for the Proposed Action** 

Agency/Department	Consultation Requirements
Federal Agencies	
Endangered Species Act Consultation	No consultation required as there will be no impacts to threatened or endangered species, please refer to Section 2.6.1.
Section 106 NHPA Consultation	Please refer to <b>Appendix A</b> for previous consultation completed for the PRC Enclosure EA and Finding of No Significant Impact (FONSI). Refer to Section 1.8.1 for a description of the PRC Enclosure EA and FONSI.
Native American Tribes	
Northern Ute Tribe, Paiute Indian Tribe of Utah, Ute Tribe of the Uinta and Ouray Reservation, Kaibab Band of Paiute Indians, Hopi Tribe, Skull Valley Band of Goshute Indians, Pueblo of Zuni, Pueblo of Zia, Pueblo of Nambe, Pueblo of Laguna, Northwest Band of the Shoshone, and Confederated Tribes of Goshute Indians.	Native American Consultation was completed for the PRC Enclosure EA and FONSI. This consultation determined there are no Indian Trust Assets within the project area. Please refer to the PRC Enclosure EA.
State Agencies	
Utah State Historic Preservation Officer	Please refer to <b>Appendix A</b> for previous consultation completed for the PRC Enclosure EA and FONSI. <b>Appendix A</b> also includes a Cultural Resources memo and a Tier 1 form from UDOT Region 3

	NHPA Specialist stating there are not any cultural impacts associated with this trail project.
County and City	projecti
Utah County	Provo River Canal Rights-of-Ways
	Greenway Interlocal Agreement
	(Appendix B)
Lehi City	Provo River Canal Rights-of-Ways
	Greenway Interlocal Agreement
	(Appendix B)
Pleasant Grove City	Provo River Canal Rights-of-Ways
	Greenway Interlocal Agreement
	(Appendix B)
City of Orem	Provo River Canal Rights-of-Ways
	Greenway Interlocal Agreement
	(Appendix B)
Highland City	Provo River Canal Rights-of-Ways
	Greenway Interlocal Agreement
	(Appendix B)
Alpine	Provo River Canal Rights-of-Ways
	Greenway Interlocal Agreement
	(Appendix B)
Lindon City	Provo River Canal Rights-of-Ways
	Greenway Interlocal Agreement
	(Appendix B)
Cedar Hills City	Provo River Canal Rights-of-Ways
	Greenway Interlocal Agreement
	(Appendix B)
American Fork City	Provo River Canal Rights-of-Ways
	Greenway Interlocal Agreement
G D : 4T 2000	(Appendix B)

Source: Project Team, 2008

# 1.8 Documents Incorporated by Reference

# 1.8.1 Provo Reservoir Canal Enclosure Environmental Assessment and Finding of No Significant Impact

As stated in Section 1.6.3, this EA examined the effects of enclosing the PRC. No significant impacts were found and a FONSI was signed by Reclamation on April 30, 2003. The PRC Enclosure EA is incorporated by reference in this EA. Copies of the PRC Enclosure EA and FONSI are available upon request by contacting Beverley Heffernan of Reclamation at (801) 379-1161 or by email, <a href="mailto:bheffernan@uc.usbr.gov">bheffernan@uc.usbr.gov</a>.

# 1.8.2 Title Transfer of Provo Reservoir Canal, Salt Lake Aqueduct, and Pleasant Grove Property Provo River Project Environmental Assessment and Finding of No Significant Impact

As stated in Section 1.6.2.1, this EA examined the effects of transferring three properties to non-federal ownership. No significant impacts were found and a FONSI was signed by Reclamation on October 7, 2004. The Title Transfers of Provo Reservoir Canal, Salt Lake Aqueduct, and Pleasant Grove Property EA are incorporated by reference in this EA. The EA and FONSI can be found at <a href="http://www.usbr.gov/uc/envdocs/ea/provoResTT/index.html">http://www.usbr.gov/uc/envdocs/ea/provoResTT/index.html</a>.

Copies are also available upon request by contacting Beverley Heffernan of Reclamation at (801) 379-1161 or by email, <a href="mailto:bheffernan@uc.usbr.gov">bheffernan@uc.usbr.gov</a>.

#### 1.8.3 Provo Reservoir Canal Greenway and Trail Plan

The purpose of this document was to identify the overall trail alignment within each city or jurisdiction, identify the conceptual design of the trail within the PRC corridor, and to outline operation and maintenance of the proposed trail and facilities. The plan addresses several key points:

- The plan is an effort put forth by PRWUA to allow for public access for trail use within the canal ROW after the canal is enclosed rather than keeping the ROW closed to the public.
- The PRC Greenway will link other regional and neighborhood trails. It will provide links to parks, open space and other recreation and public facilities.
- The trail should not adversely impact the existing residential or commercial neighborhoods and businesses.
- The completion of the trail is contingent upon successful enclosure of the PRC.
- A federal grant obtained by PRWUA for the trail improvements requires a local match of 20 percent. This local match will be paid for by the northern Utah County cities where the trail passes through and/or Utah County.

Copies of this document are available upon request by contacting Psomas Engineering at (801) 270-5777.

# 1.9 Purpose and Contents of this Environmental Assessment

The purpose of this EA is to identify and consider the effects of constructing a non-motorized trail on top of the enclosed PRC. As required by CEQ regulations implementing NEPA (40 CFR 1501.4), if a potentially significant impact is identified, an EIS will be prepared. If no significant impacts are identified; Reclamation and FHWA will issue separate FONSIs in accordance with 23 CFR 771.121. The FHWA FONSI would authorize UDOT to use the federal funding. The Reclamation FONSI would authorize use of the PRC ROW for a trail, subject to certain conditions.

This document consists of the following chapters:

- 1) Proposed Action and Purpose and Need
- 2) Description of Alternatives, Including the Proposed Action
- 3) Affected Environment and Environmental Consequences
- 4) Consultation and Coordination
- 5) List of Preparers

#### References

Appendix A – Cultural and Native American Consultation

Appendix B – Draft Provo River Canal Rights-of-Way Greenway Interlocal Agreement

# 2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

This chapter describes the two alternatives analyzed in detail in this EA, the Proposed Action and the No Action Alternative. As described in Chapter 1, the purpose of the project is to construct a trail with two use surfaces on top of the enclosed PRC within the existing ROW. The trail would be built for non-motorized activities including, but not limited to pedestrian, bicycling, and equestrian use. The trail would allow the public to access the canal ROW, would provide needed recreational facilities (the trail and trail facilities), and would create links between other existing or proposed trails.

In accordance with the guidelines in the FHWA Technical Advisory T 6640.8a (FHWA, 1987), this EA will only address those resources or features that are likely to be impacted by the proposed action.

## 2.1 Assumptions

The following assumptions provide the basis for analysis of potential effects under all alternatives:

- A trail cannot be constructed along the PRC ROW unless or until the canal is enclosed.
- Enclosure of the canal will proceed under either Reclamation or PRWUA ownership.
- If ownership of the PRC is transferred to PRWUA, the federal government will retain federal reserved easements along the PRC ROW consistent with Contract number 04-WC-40-8950.
- Construction, operation, maintenance and use of the trail along the PRC ROW cannot interfere with construction, operation, maintenance, repair, and access to the PRC, CUP, or other water conveyance facilities.

# 2.2 Independent Utility and Logical Termini

Federal law (23 CFR 771.111(f)) requires that each transportation project evaluated in a NEPA document:

- Connect logical termini and be of sufficient length to address environmental matters on a broad scope
- Have independent utility or independent significance
- Not restrict consideration of alternatives for other reasonable foreseeable transportation improvements

The logical termini of the proposed action are where the PRC intersects with 800 North in Orem on the south end, and where the PRC intersects with SR-92 on the north end. These are logical termini because the completed trail would connect to an existing trail (Provo River Parkway) on the south end, and because the trail could connect to the partially constructed

rail trail on the north end. These termini also have independent significance because a trail completed between these two termini would be usable without the connections to the other trails.

### 2.3 Description of the No Action Alternative

Under the No Action Alternative, a non-motorized trail would not be constructed on top of the enclosed PRC. PRWUA would continue to fence and lock the canal ROW at public streets, as the general public would not be allowed to enter the canal maintenance area. The PRC would continue to feel the pressure of encroachment from surrounding lands as they develop. Maintenance and operation of the canal would continue.

## 2.4 Description of the Preferred Alternative (Proposed Action)

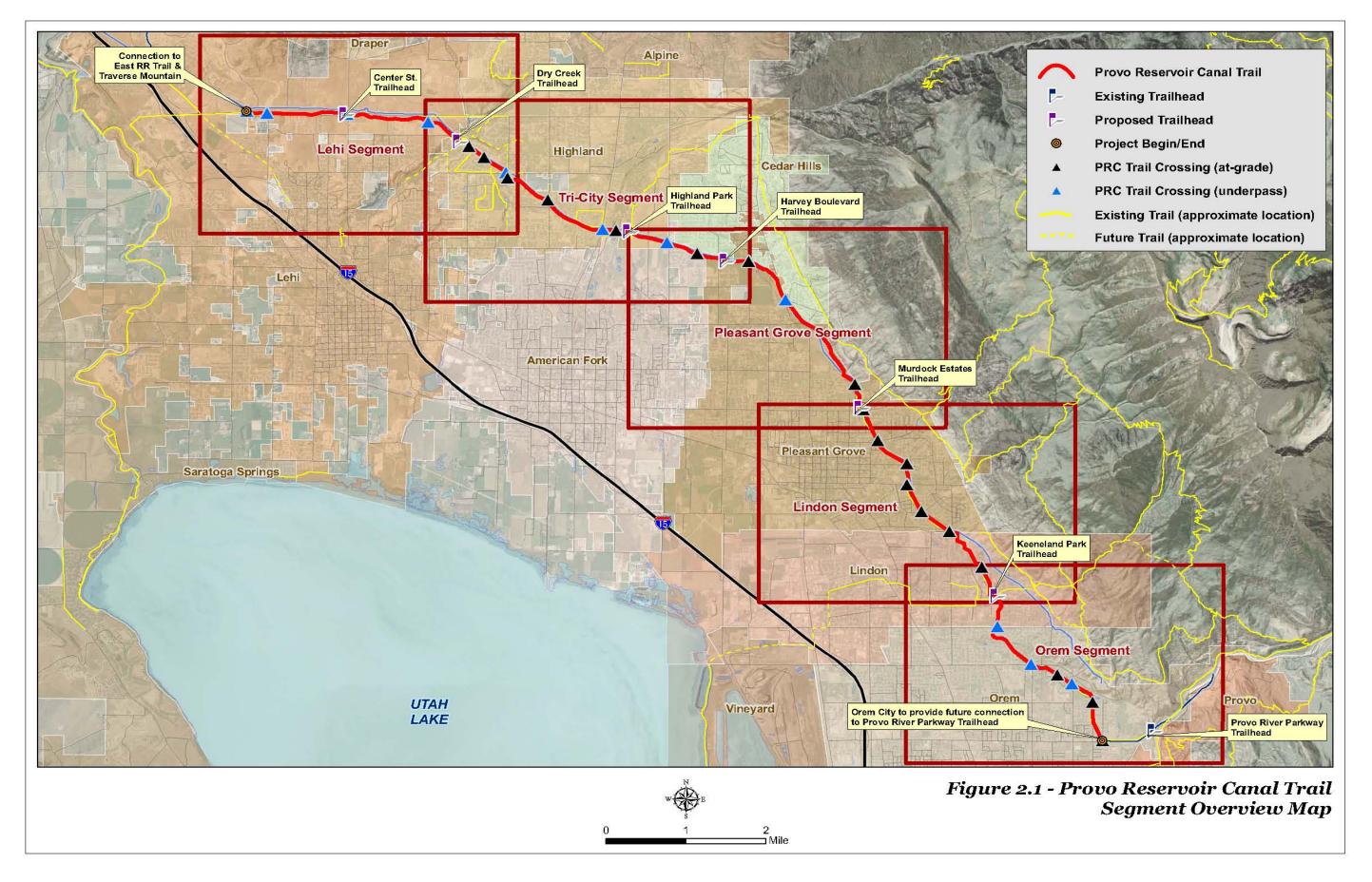
#### 2.4.1 Overview

Under the Proposed Action, there would be a non-motorized trail system constructed on top of the enclosed PRC within the existing canal corridor. The operation and all maintenance activities associated with operation of the PRC, CUP, and other water conveyance facilities would continue, and would take priority over any trail activity. The overall Proposed Action is shown on **Figure 2.1** with the proposed crossings and trailheads. The proposed trail has been divided into five segments:

- 1) Lehi
- 2) Tri-City (including Highland, Cedar Hills, and American Fork)
- 3) Pleasant Grove
- 4) Lindon
- 5) Orem

A detailed description and figures for each trail segment follow in the subsequent sections.

Chapter 2 – Alternatives



All segments of the trail would have similar designs. The width of each of the surfaces would be approximately 12-feet, with a 2-foot clear area on either side for a total width of 16-feet per surface. The typical PRC ROW is 100 feet and the trail would meander within the ROW. The materials recommended for the hard surface are asphalt with a minimum thickness of three inches. More substantial asphalt and base may be necessary to accommodate canal operating and maintenance vehicles and equipment. This will provide for a slightly raised surface that is crowned to allow for drainage away from trail. A separate, soft surface may be constructed using wood chips, compacted crushed gravel, or other resilient material, parallel to but separated from the paved path.

An overpass, underpass, bridge, or facility on a highway bridge may be necessary to provide connectivity and continuity of the trail. If the trail will go under a roadway the under-crossing box will be at least 10 feet high by 16 feet wide. In areas where there is an underpass, an atgrade (or street level) crossing will also be provided. Lighting will be required at underpass crossings for safety.

The following figure (**Figure 2.2**) shows an underpass and an at-grade crossing. The two surfaces would come together before going through the underpass. The at-grade crossings will have road striping to allow safe crossing. The two surfaces would also come together for the at-grade crossing. Removable bollards may be installed to provide access for maintenance and emergency vehicles.

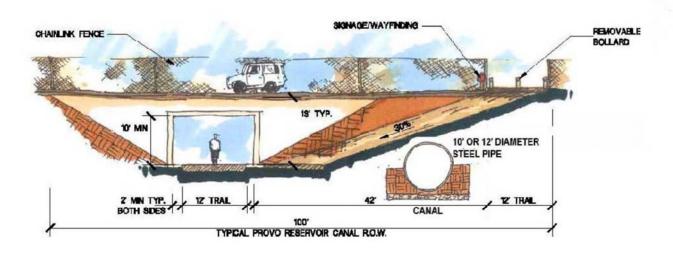


Figure 2.2 – View of an Underpass and an At-Grade Crossing From the Trail Corridor

#### **Trailheads**

All trailheads would be designed for complete accessibility, meaning they would be compliant with Americans with Disabilities Act (ADA). Trailheads will typically include 10 to 15 parking stalls, restrooms (with lighting), benches, picnic tables, trail signs, bike rack, and a drinking fountain.

Two types of trailheads have been preliminarily designed, a Type A and Type B trailhead. A Type A trailhead will include the following features, and will be constructed at major trailheads/parks along the corridor (**Figure 2.3**):

- Restroom
- Parking
- Way finding signs/kiosk
- Benches
- Horse staging area, trailer parking
- Bike rack
- Emergency phone
- Picnic tables
- Drinking fountain, and
- Trash receptacles

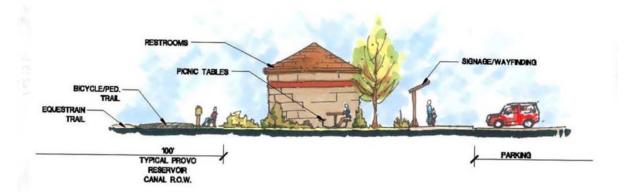


Figure 2.3 – View of a Type A Trailhead from the Trail Corridor

Type B trailheads will include:

- Parking
- Way finding signs/kiosk
- Benches
- Bike rack

- Emergency phone
- Picnic tables
- Drinking fountain, and
- Trash receptacle

#### 2.4.2 Proposed Action Features

#### **2.4.2.1 Segment 1: Lehi**

The Lehi segment is the western gateway to the PRC Trail. It will provide a connection to the Jordan River Parkway and the Traverse Mountain development (see **Figure 2.4**). Utah County plans to tie the proposed Historic Utah Southern Rail Trail (rail trail) into the PRC trail at SR-92.

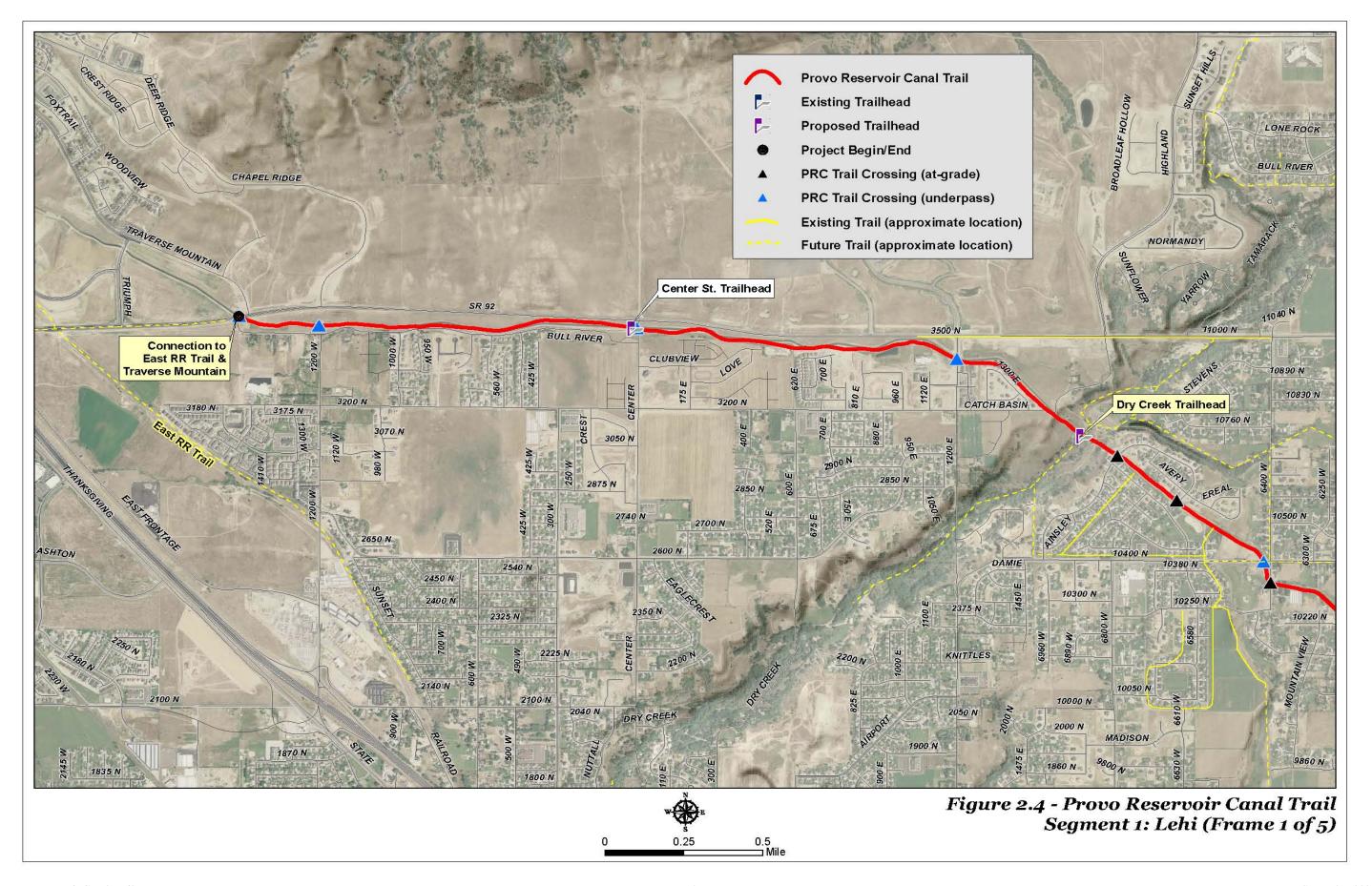
The proposed rail trail would begin east of I-15 at the Point of the Mountain, primarily following the existing Utah Transit Authority (UTA) rail corridor past Cabela's and parallel to State Street to the American Fork city boundary. Refer to **Figure 2.4** for an overview of the proposed route for the rail trail. The rail trail is planned to be a 10-foot paved, multi-use trail that travels the length of Lehi City and links to other existing and planned trails throughout the region. The rail trail study is being funded with a \$300,000 Congestion Mitigation and Air Quality (CMAQ) grant awarded through the Mountainland Association of Governments (MAG). MAG is a political subdivision of the State of Utah, an intergovernmental agency working for all of the cities/towns of Summit, Utah and Wasatch counties, and the counties of Summit and Wasatch.

It has been proposed to locate the Dry Creek Trailhead half way from the top of the ravine to the bottom of the creek. Crossing Dry Creek requires special consideration as there are considerable elevation changes in the area. On the north side of Dry Creek, the average slope down to the lowest elevation is 10 percent. Although 10 percent is an acceptable grade for a trail, it is proposed that switchbacks be constructed within the ROW to the creek for ADA access and to minimize disturbance to vegetation from erosion on the hillsides. The land to the south of the PRC at this intersection is owned by Highland City and would be a potential location for a trailhead. The slope on the south side of Dry Creek averages 20 percent. It is recommended that the trail also contain switchbacks on this side of the ravine. The switchbacks would be designed with a maximum slope of 5 percent to accommodate ADA access. The Lehi segment ends at the Dry Creek crossing.

Road or stream crossings for this segment area as follows:

- State Road 92, Lehi
- 1200 West, Lehi
- Center Street, Lehi
- 1200 East, Lehi
- Dry Creek

Chapter 2 – Alternatives



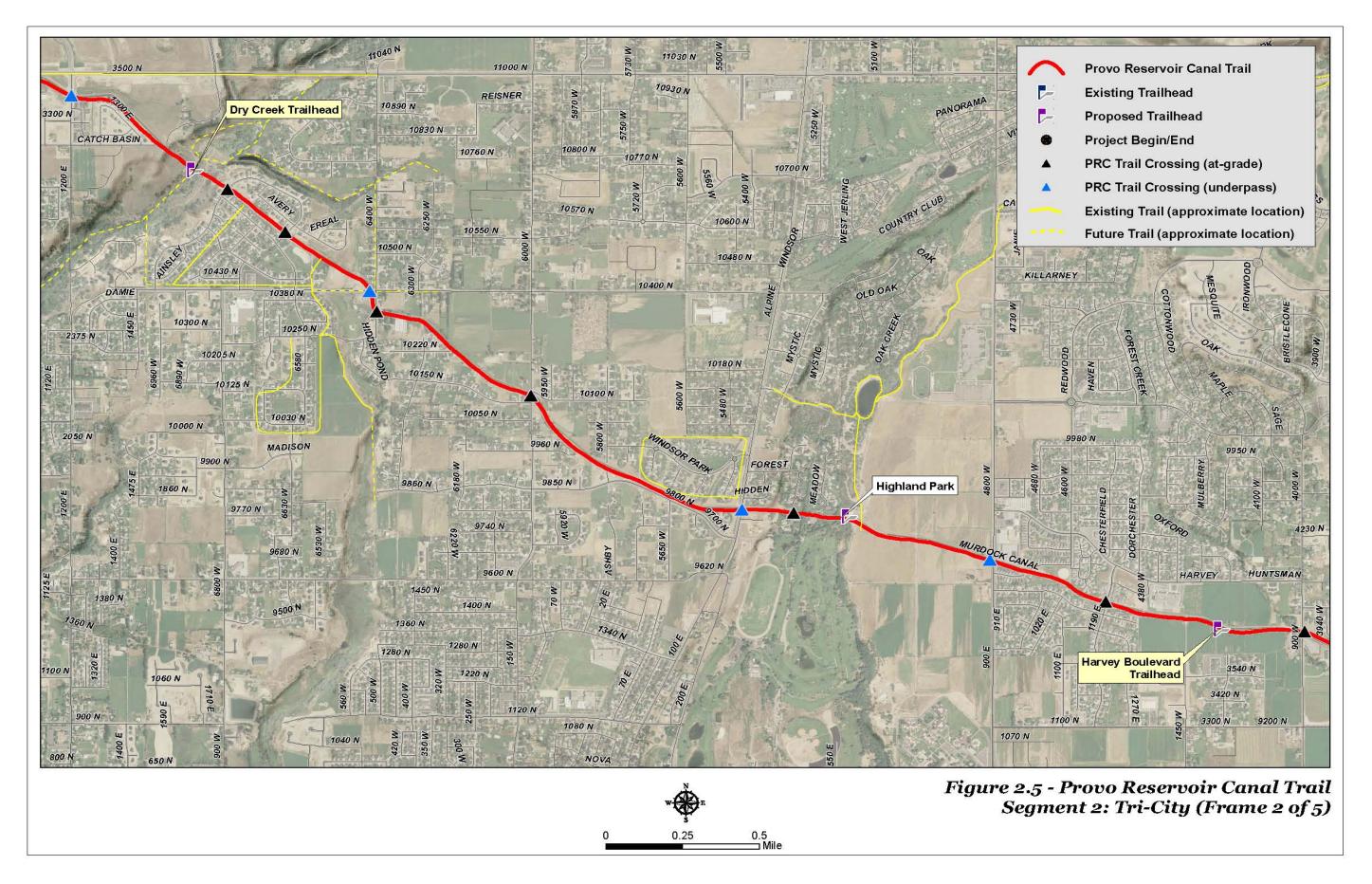
#### **2.4.2.2 Segment 2: Tri-City**

The corridor continues in a southeast direction through Highland City and intersects with the Centennial Parkway Trail near the Tri-City Golf Course. This segment would end at another proposed trailhead location at a proposed park (Harvey Park) on the border of Cedar Hills and Pleasant Grove City on Harvey Boulevard (see **Figure 2.5**). The park is included in Cedar Hills General Plan (Cedar Hills, 1995), as a proposed park and a concept plan has been created for the park. The park would be located just to the south of the Elementary school on a 12.4 acre parcel of open land, and would be owned by Cedar Hills. This segment would provide connections to neighborhood parks, Mitchell's Hollow Park, and the Highland Trails.

Road or stream crossings for this segment are as follows:

- Canterbury Road (west), Highland
- Canterbury Road (east), Highland
- 10400 North, Highland
- 6400 West, Highland
- 6000 West, Highland
- State Road 74 (Alpine Highway), Highland
- Pheasant Road, Highland
- American Fork Creek
- 4800 West, Highland/American Fork
- 4500 West, Cedar Hills

Chapter 2 – Alternatives



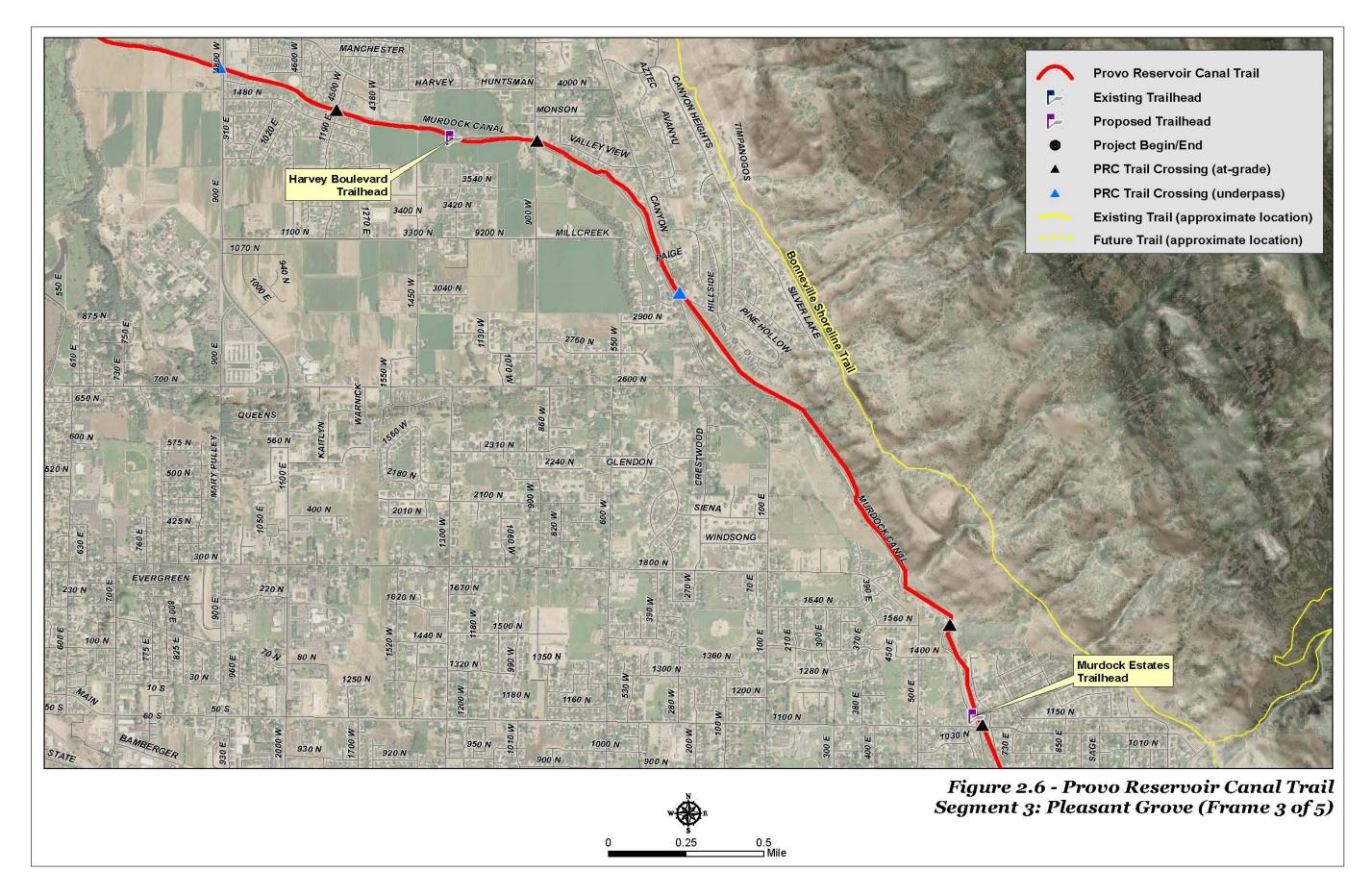
#### 2.4.2.3 Segment 3: Pleasant Grove

The Pleasant Grove segment of the trail would begin at the proposed Harvey Boulevard Trailhead. This parcel of land is shown as a proposed park on the Cedar Hills Parks and Trails Plan (last updated April 2006). From there, the trail would continue in a southeasterly direction through the eastern section of Pleasant Grove City to the proposed Murdock Estates Trailhead at 1100 North in Pleasant Grove (see **Figure 2.6**). There are possible opportunities within this section of the proposed trail to connect to the Bonneville Shoreline Trail as shown in the Cedar Hills Parks and Trails Plan.

Road crossings for this segment are as follows:

- 4000 West, Pleasant Grove
- Canyon Road, Pleasant Grove
- 1560 North, Pleasant Grove

Chapter 2 – Alternatives



# **2.4.2.4 Segment 4: Lindon**

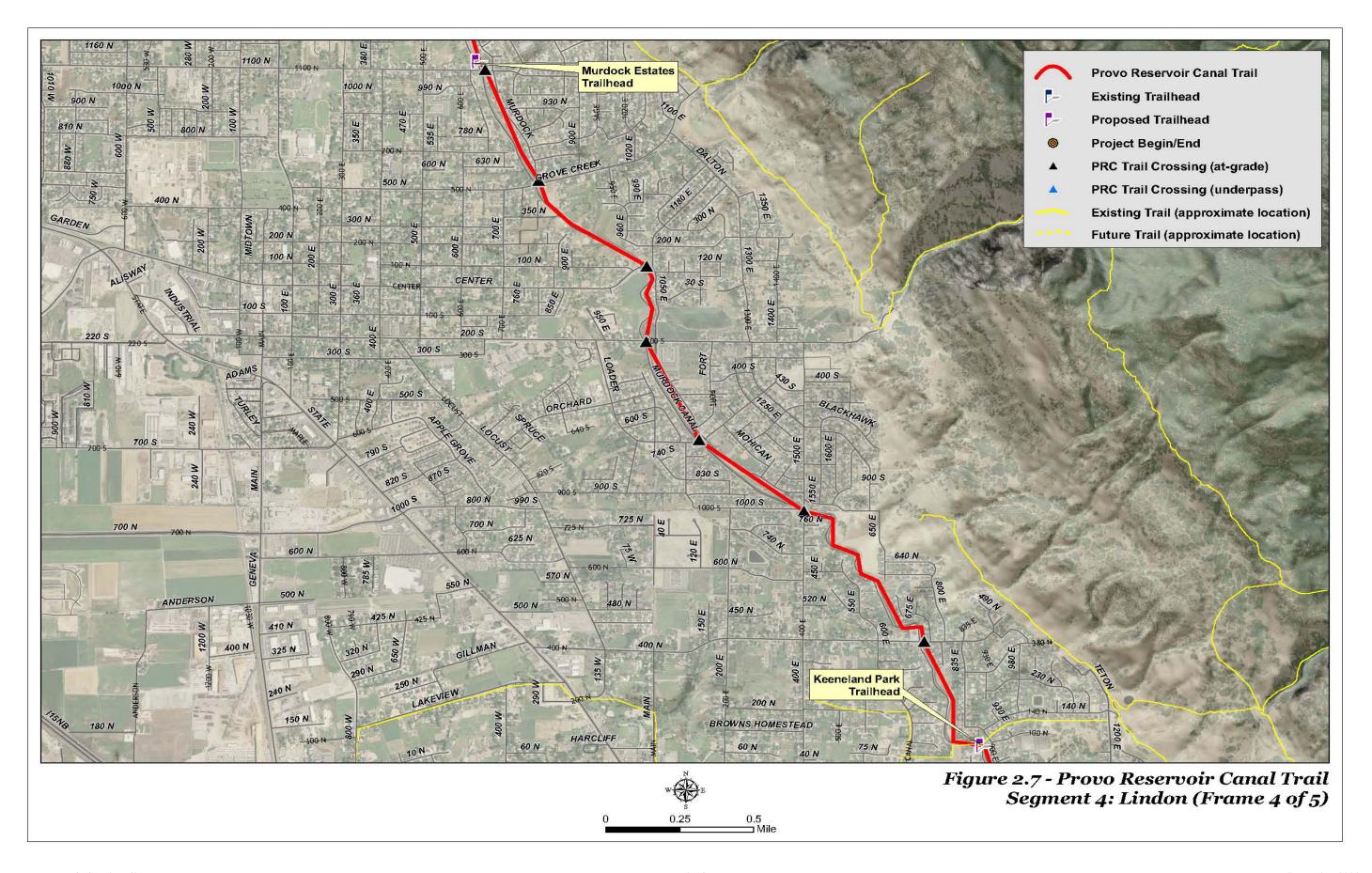
This segment of the proposed trail begins at the proposed Murdock Estates Trailhead on a city-owned parcel of land, east of the PRC, at the intersection of the PRC and 1100 North in Pleasant Grove (**Figure 2.7**). The proposed trail would continue through Pleasant Grove and into Lindon City and then would continue in a southeasterly direction through Lindon to the proposed Keeneland Park Trailhead. Lindon City proposes to construct a picnic area with restrooms in this area. Opportunities may exist within this proposed trail segment to connect to Anderson Park, Battle Creek Park, Panorama Point Park, the proposed Lindon Heritage Trail, and other facilities.

The Murdock Estates Trailhead has been identified by the Utah County as an important trailhead due to the location with respect to the proposed PRC trail.

Road crossings for this segment are as follows:

- 1100 North, Pleasant Grove
- Grove Creek Drive (500 North), Pleasant Grove
- 100 North, Pleasant Grove
- 200 South, Pleasant Grove
- 775 South Nathaniel Drive, Pleasant Grove
- 1500 East, Pleasant Grove
- 400 North, Lindon

Chapter 2 – Alternatives



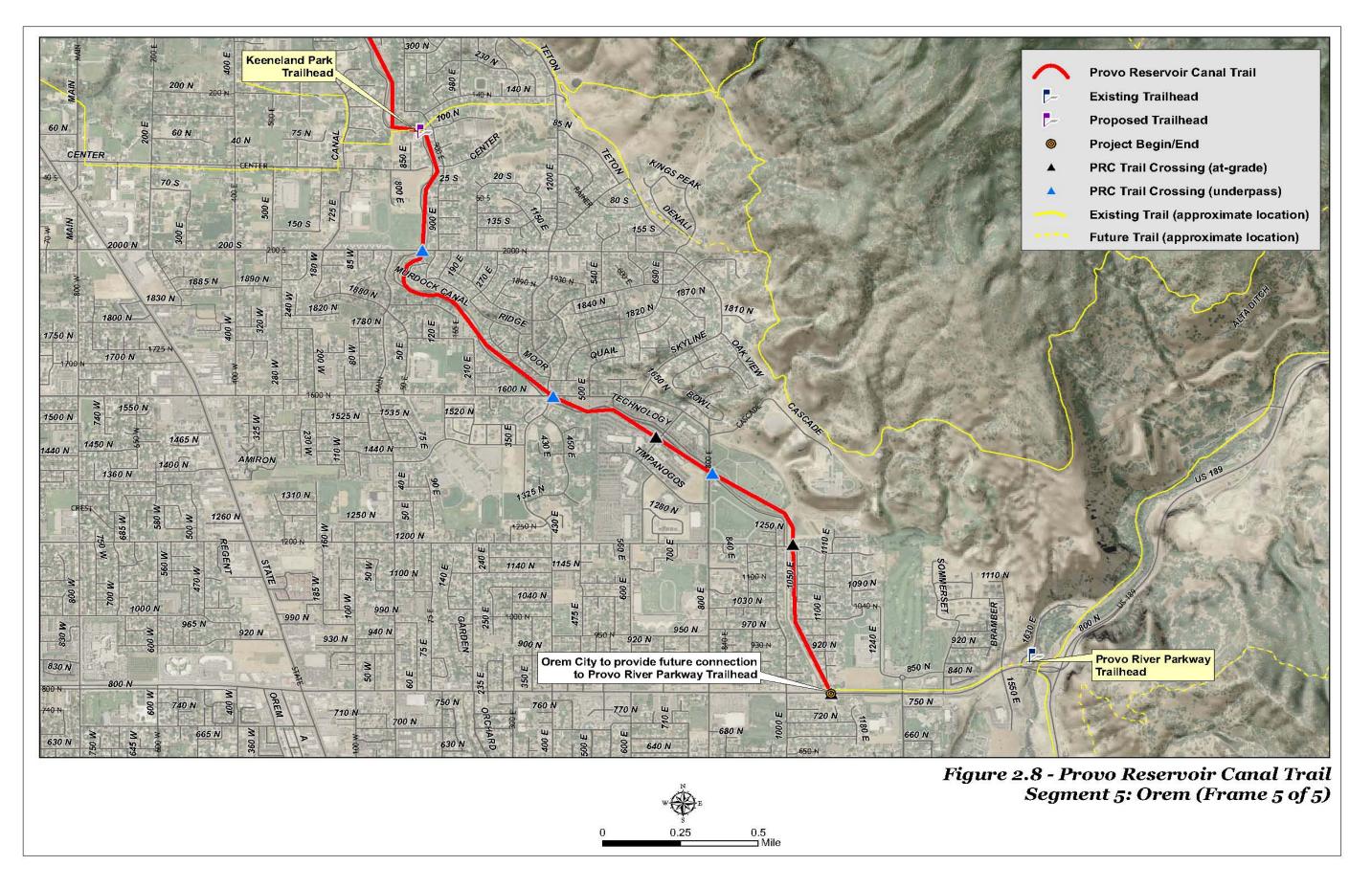
# **2.4.2.5 Segment 5: Orem**

This segment would begin at the proposed Keeneland Park Trailhead (**Figure 2.8**). Lindon City has already constructed pathways along the corridor at Keeneland Park as part of the proposed Lindon Heritage Trail. This point would also provide direct access to Panorama Pointe Park. The proposed trail continues from this point southeasterly through Lindon and Orem until it reaches 800 North in Orem. At this point, Orem City has committed to connect the proposed trail to the existing Provo River Parkway Trailhead located at the mouth of Provo Canyon. This segment of the proposed trail would provide direct access to the cemetery and soccer fields, as well as other public facilities. There are currently no existing restroom facilities located along this proposed segment, the proposed Keeneland Park would have restroom facilities.

Road crossings for this segment are as follows:

- 200 South, Lindon (2000 North, Orem)
- 400 East 1600 North, Orem
- 750 East, Orem
- 800 East, Orem
- 1200 North, Orem
- 800 North, Orem

Chapter 2 – Alternatives



# 2.5 Alternatives Considered but Eliminated from Further Analysis

There were not any other alternatives considered for analysis. The purpose of the project is to construct a trail system on top of the enclosed PRC and within the PRC easement or ROW and the need for the project is to create recreation opportunities and possible non-motorized commuting opportunities. The reason no other alternatives were considered is because there are not any other alternatives that would meet the purpose and need for the project.

# 2.6 Scope of the Environmental Analysis

This EA examines and discloses to the public and the Lead Agencies, the effects of the alternatives on the natural and built environment. The scope of this analysis will be whether the Lead Agencies should authorize the Proposed Action to construct a non-motorized trail on top of the enclosed PRC.

# 2.6.1 Issues Eliminated from Further Study

Issues determined to have no relevance to the decision or to have effects inconsequential to the decision were eliminated from further analysis. These issues are presented in **Table 2.1.** 

**Table 2.1** Issues Eliminated from Further Study

Element	Rationale
Cultural Resources	Enclosure of the PRC and transfer of ownership of the PRC constituted adverse effects under the National Historic Preservation Act (NHPA) Section 106. Mitigation for these adverse effects has already been completed in consultation with Utah State Historical Preservation Officer (SHPO). The proposed trail would have no effect on cultural resources. The previously completed consultation documents are included in <b>Appendix A.</b>
Indian Trust Assets	There are no Indian Trust Assets within the project area. Consultation from the PRC Enclosure EA is included in <b>Appendix A</b> .
Geology, Soils, and Topography	There would be no direct or indirect effects on geologic, soil, or topographical resources.
Hazardous Waste	There are no hazardous waste sites that would be impacted by the proposed action
Paleontology	There are no paleontological resources in the project area. There would be no direct or indirect effects.

Element	Rationale
Water Rights/Delivery Systems	Construction of the proposed trail would be subject to the condition that it cannot interfere with operation and maintenance of the PRC or other federal water delivery structures. Therefore the project will have no effect on water rights or delivery systems.
Fisheries	There are no fisheries within the project corridor, and therefore there would be no impacts to fisheries.
Threatened and Endangered Species	There are no Threatened and Endangered species within the project corridor, and therefore there would be no impacts.
Water Quality	There are no expected impacts to water quality associated with the trail construction as the PRC will already be enclosed before the construction of any trail.
Wetlands	There are no wetlands within the corridor, and therefore, trail construction on top of the enclosed PRC will not impact any wetlands.

Source: URS, 2008

# 2.6.2 Issues Studied in Chapter Three

# 2.6.2.1 Land Use and Land Ownership

The primary use of the PRC corridor ROW, operation and maintenance, will continue and will have priority over any other use. The construction of a trail system would constitute an added use for recreation and possibly commuting. This use cannot interfere with operation of the PRC, CUP, or any other water conveyance facilities in or near the project area. If the proposed trail were constructed, the trail would be maintained by the Utah County and the cities and would be opened for recreational use. This is further discussed in Section 3.3.

# **2.6.2.2 Air Quality**

There would be impacts to air quality during construction of the trail. This is further discussed in Section 3.4.

# 2.6.2.3 Safety and Noise

The safety and noise impacts of trail construction and use are an important consideration of this project because of its close proximity to residential and park areas. This is further discussed in Section 3.5.

# 2.6.2.4 Transportation

Transportation is discussed in this document from the perspective of the traveling public on the roadways that transect the proposed trail system and from the perspective of the traveling public using the trail as a way to commute. Transportation is discussed in greater detail in Section 3.6.

## 2.6.2.5 Socioeconomics

Trail construction would likely create short-term and long term impacts to communities. This is further discussed in Section 3.7.

#### 2.6.2.6 Recreation

The proposed trail would create new recreation opportunities in Utah County. The proposed trail would be used as a non-motorized recreation trail for pedestrians (including joggers and runners), bicyclists, and equestrians. This is further discussed in Section 3.7.

## 2.6.2.7 Environmental Justice

The proposed action would not disproportionately affect minority or low income populations. This is further discussed in Section 3.8.

## 2.6.2.8 Visual Resources

Visual resources have been taken into consideration on while creating conceptual designs for a trail on top of the enclosed canal. This is further discussed in Section 3.9.

#### **2.6.2.9** Wildlife

Because the affected environment for this proposed action is actually the PRC canal after the canal has been enclosed there would be very little wildlife habitat in the area; however once the trail is constructed and landscaping is added wildlife, including birds, may use the trail area. The canal will already be enclosed before a trail would be constructed and any impacts from the enclosure were discussed in the Enclosure EA. This is further discussed in Section 3.10.

# 3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Chapter 3 provides a description of existing conditions for affected resources, and the potential environmental consequences that could result from the proposed action described in Chapter 2. Resource topics described and assessed in Chapter 3 include; air quality, wildlife, visual resources, safety, noise, transportation, socioeconomics, environmental justice, and land use (including ownership).

For the purposes of describing the affected environment, the location and extent of the study area depends on the resource being evaluated. Most resources for the proposed trail project have been evaluated within the project area bounded by SR-92 on the north, 800 North (in Orem) on the south, and the existing PRC ROW. Some resources, such as social and economic conditions, required a broader study area and are described in the individual resource section. Information about the affected environment for each resource topic was the baseline by which potential impacts of the project were identified and measured.

Impacts may be direct or indirect, cumulative, short-term or long-term, or beneficial or adverse, as described below:

- *Direct effects* are caused by the action and occur at the same time and place.
- *Indirect effects* are caused by the action, are later in time or farther in distance, but still reasonably foreseeable.
- *Unavoidable adverse impacts* are unavoidable impacts that remain after mitigation. Unavoidable adverse impacts are in Section 3.11.
- Cumulative effects result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of the agency or person who undertakes them (federal or non-federal). Cumulative effects are addressed in Section 3.12.
- *Short-term impacts*, for the purpose of this project, are those changes to the environment that occur during project construction.
- Long-term impacts are defined as those that would persist beyond or occur after project construction.
- Impacts can be *beneficial* (positive), or *adverse* (negative).

One of the statutory requirements of NEPA, and the purpose of this EA, is to determine if a federal action (the project) has a significant effect on the quality of the natural and built environment. To determine significance, NEPA regulations require the consideration of both *context* and *intensity*.

• *Context* means the action must be assessed in several contexts, which will vary with each project, including society as a whole, the affected region, affected interests, and the locality.

• *Intensity* means the severity of the impact should include consideration of such factors as impacts to public health, effects to unique cultural resources, impacts to public lands or resources, impacts to endangered or threatened species, level of controversy, and level of risk or uncertainty.

# 3.1 Summary of Resources Not Analyzed in Detail

As noted in Section 2.6.1, issues or resources determined to have no relevance to the decisions or have effects inconsequential to the decisions were eliminated from further analysis. These issues or resources are:

- Cultural Resources
- Indian Trust Assets
- Geology, Soils, and Topography
- Hazardous Waste
- Paleontology
- Water Rights/Delivery Systems
- Water Quality
- Fisheries
- Threatened and Endangered Species
- Wetlands

# 3.2 Summary of Resources Analyzed in Chapter Three

Resources that may potentially be affected by the proposed action are analyzed in detail. These issues or resources are:

- Land Use and Land Ownership
- Air Quality
- Safety and Noise
- Transportation
- Socioeconomics (including Recreation)
- Environmental Justice
- Visual Resources
- Wildlife

# 3.3 Land Use and Land Ownership

#### 3.3.1 Introduction

This section describes the current and future land use and land ownership within the project area. This section also discusses the potential impacts of the proposed action and the no action alternatives on the land use and land ownership within the project area. The Utah County General Plan (Utah, 2007), Lehi City General Plan (Lehi, 2001), Highland City General Plan (Highland, 2008), Cedar Hills General Plan (Cedar Hills, 1995 and 2002), American Fork City General Plan (American Fork, 1996), Pleasant Grove General Plan (Pleasant Grove, 2007), Lindon City General Plan (Lindon, 2006), and Orem General Plan (Orem, 2006) were reviewed as part of the analysis for land use.

## 3.3.2 Affected Environment

This section describes the lands that may be affected by the proposed action. Details of current land ownership and management issues are described in this section. The affected environment of the project area will be described as it will be before the proposed action could happen.

## 3.3.2.1 Land Ownership

The PRC is currently owned by the federal government under Reclamation's jurisdiction and the operation and maintenance is performed by the PRWUA under an existing contract. The federal government currently owns the land rights for the PRC as follows:

Fee Title: approximately 222 acres
Easement: approximately 134 acres

The title transfer of the PRC to PRWUA (PRO-EA-04-001) was approved in October 2004. The title transfer has not occurred to date, but is expected to occur before the PRC is enclosed. Any federal reserved ROW would be transferred as easements to PRWUA.

The PRC will be owned, operated, and maintained by the PRWUA once the title transfer has occurred. Regardless of ownership of the PRC after it is enclosed, the federal government will still retain federal reserved easements along portions of the PRC corridor for the purposes described in Contract number 04-WC-40-8950. In addition a facilities easement is planned to be conveyed by PRWUA to CUWCD, JVWCD, and MWDSLS if title transfer occurs.

#### **3.3.2.2** Land Use

Operations and maintenance of the PRC and other federal facilities is currently the only authorized use of the land within the PRC ROW. There are currently several instances of public trespassing within the canal ROW.

The general plans of Utah County and the various cities in which the PRC passes through contain a number of overall goals and objectives that focus on land use and recreation opportunity development within their jurisdictional areas, including goals within the PRC ROW. These goals and objectives are listed below and taken directly from the documents:

- A system of pedestrian facilities, trails and bikeways should be developed which
  would provide convenient and safe movement of non-motorized traffic. Work with
  federal, state and local agencies, community groups and private interests to secure
  available funds for development, maintenance and acquisition of park sites, trails and
  recreation facilities (Lehi, 2001).
- Link Highland City's neighborhoods and destinations as part of a comprehensive system of trails and pathways. Identify and acquire missing connections and gaps in the community trail and open space system, where possible. Support and encourage implementation of the Provo Murdock Canal Trail, also known as the PRCT (Highland, 2008).
- Pursue an active park and recreation acquisition and development program, with
  particular emphasis on areas currently inadequately served. Although the community
  encourages the City to develop a trail system providing a variety of experiences and
  opportunities to a diverse user group, most residents indicate a preference for limiting
  trail use to non-mechanized users. American Fork will encourage partnerships with
  private businesses, special interest groups, individuals, and surrounding communities
  to pursue and coordinate trail development activities (American Fork, 1996).
- Anticipate and design an interconnecting trail system (Cedar Hills, 2002). Link to
  present and future trails in Utah County and surrounding areas. Provide trail
  diversity. Various user activities include: hiking, walking, bicycling, jogging, roller
  blading, horseback riding, etc. The trail system should accommodate these multiple
  uses and users (Cedar Hills, 1995).
- Linear parks/trails should be maintained and expanded along streams, creeks, easements, and rights-of-way, i.e. Murdock Canal (PRC). Trail crossings will allow for the safe crossing of canals and streets by all trail users, and include, but are not limited to, grade separations, such as bridges and underpasses (Lindon, 2006).
- Plan and construct trails along the Murdock Canal (PRC), the Bonneville Shoreline and the Utah Lake shore (Orem, 2008).
- Utah County government should be part of a multi-jurisdictional cooperative effort to develop and maintain a county-wide recreational trail system which should interconnect major recreation areas and popular trail routes whenever possible (Utah, 2007).

# 3.3.3 Impact Analysis

#### 3.3.3.1 No Action Alternative

The No Action alternative would have no direct impacts to land use or land ownership along the PRC ROW. The enclosure of the PRC would occur, but there would not be any trail construction on top of the enclosed canal. Land ownership would not change. The canal would be enclosed and the area leveled.

There would be negative indirect impacts to land use within the PRC ROW because no trail or recreational use areas would be constructed. This would be negative because all the

September 2008

municipalities have objectives in their plans to increase trails and parks within their boundaries. It would be a loss of open space for use as trails or recreation areas.

## 3.3.3.2 Proposed Action Alternative

The proposed action would result in the construction of a trail with two use surfaces on top of the enclosed PRC. The trail would be maintained by Utah County and the cities in which the trail is built, however, the PRC ROW would still be owned by PRWUA. The cities would be given access through agreements approved by PRWUA to construct, maintain, and operate the trail.

The use of the trail would be in addition to continued operation of the canal. Canal operation and maintenance would continue to have priority. This could mean that sections of the trail might, over time, have to be temporarily closed and possibly torn up in the case of needed repairs to the canal or other federal facilities. If the trail needs to be torn up for canal repairs, it would be up to county or local governments, not the federal government or PRWUA, to repair the trail afterwards.

Positive direct impacts from the construction of the trail would be the recreation opportunities created for the public. A positive direct impact for PRWUA would be the benefit of not having to deal with trespassing on the PRC ROW, as it would be open to the public for non-motorized recreation and commuting. Constructing a trail on top of the PRC would be consistent with the goals and objectives in the general plans of the county and local governments.

There would be no significant negative impacts to land use or land ownership and there would be a net positive benefit to land use, as there would be recreational land use added in the community that is in conformity with the plans of the cities and county.

# 3.3.4 Mitigation Measures

The project will be consistent with and will be designed to implement the goals and objectives of the county and city general plans for development in the area.

Because the operation and maintenance of the PRC and other facilities within the ROW are the primary use of the land, these activities must be allowed to continue during trail construction. Trail construction will temporarily stop, if needed, when activities need to occur on the enclosed PRC or other authorized facilities within the ROW.

# 3.4 Air Quality

## 3.4.1 Introduction

This section identifies potential air quality impacts from the construction and operation of the Proposed Action and No Action alternatives.

## 3.4.2 Affected Environment

The impact area of influence is the project area and the areas adjacent to the project area (mostly neighborhoods).

Once the PRC is enclosed, it will be covered with fill material and leveled. The fill material will largely consist of soil and rocks and some seeding. When winds are present, this material could be disturbed causing dust to enter the air immediately adjacent to the PRC. This dust, or particulate matter (PM), may be an irritant to the public, especially those living adjacent to the canal.

Non-attainment areas fail to meet National Ambient Air Quality Standards (NAAQS) for one or more of the criteria pollutants: oxides of nitrogren ( $NO_X$ ), sulfur dioxide ( $SO_2$ ), ozone ( $O_3$ ), particulates less than 10 microns in diameter ( $PM_{10}$ ), particulates less than 2.5 microns in diameter ( $PM_{2.5}$ ), carbon monoxide (CO), and lead (PO). Utah County is designated by the U.S. Environmental Protection Agency (PO) as a Non-attainment area for PO10, and is in attainment for all other NAAQS. The Provo/Orem area is designated as a Maintenance Area for PO11. These designations are current as of July 2006 (PO1208).

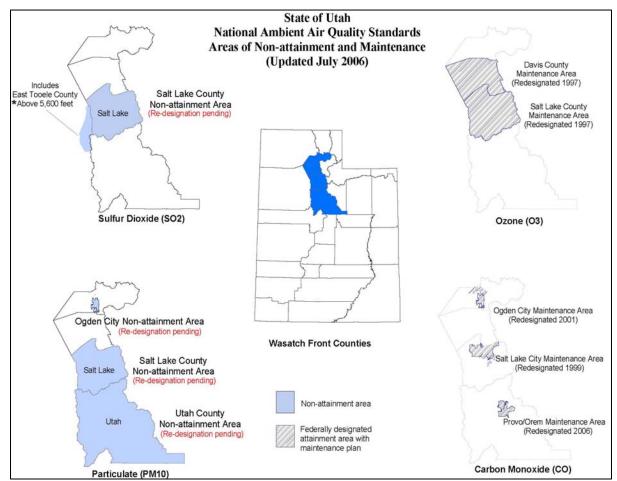


Figure 3.1 – National Ambient Air Quality Standards Areas of Non-attainment and Maintenance in Utah

PM<sub>2.5</sub> was recently added to the list of NAAQS as a criteria pollutant. According to a memo to the Utah Department of Environmental Quality (UDEQ) Air Quality Board, much of Utah County has been recommended for inclusion in the Utah Valley PM<sub>2.5</sub> nonattainment area. This recommendation has been made to the EPA. The EPA has not made their final determination at this time. (UDEQ, 2008)

# 3.4.3 Impact Analysis

#### 3.4.3.1 No Action Alternative

The trail would not be constructed as part of the No Action alternative. As such, the conditions within the PRC ROW would remain the same. The canal would be enclosed and fill would be put on top of the canal. This fill could be disturbed during windy periods. The PRC ROW would also be seeded with native vegetation, which would help to reduce fugitive dust by stabilizing the soil. The disturbance from the wind would cause temporary fugitive dust clouds that should dissipate after the wind stops. The operation and maintenance of the enclosed PRC would not create an increase in NAAQS criterion pollutants.

## 3.4.3.2 Proposed Action Alternative

The construction of the trail would involve excavation. During excavation activities the soil disturbance could temporarily increase fugitive dust particles adjacent to the construction area. This would be a short term impact as the dust would dissipate once construction activities are completed. The construction of the trail would help to decrease the amount of future dust within the ROW because the trail would cover some of the open soil and because there would be some seeding of the disturbed area that would stabilize the soil.

The purpose of this project is to provide a recreational and/or commuting option by constructing a trail on top of the enclosed PRC. This project will not result in any meaningful changes in traffic volumes, vehicle mix, relocation of any existing facilities, or any other factor that would cause an increase in emissions impacts relative to the no-action alternative. "As such, FHWA has determined that this project will generate minimal air quality impacts for Clean Air Act (CAA) criteria pollutants and has not been linked with any special (MSAT) concerns. Consequently, this effort is exempt from analysis for Mobile Source Air Toxics MSATs" (FHWA, 2006).

The operation of the trail should not cause an increase in any of the NAAQS criteria pollutants as the trail would only be for non-motorized use. There would be occasional vehicles on the trail to do normal operation and maintenance activities on the PRC and other federal facilities, and on the trail. There would not be enough vehicle presence on the constructed trail to increase any of the criteria pollutants or MSATs, and thus there would be no long term impact to air quality from the construction or operation of the trail.

There would be no significant impacts to air quality from the proposed action.

# 3.4.4 Mitigation Measures

The following Best Management Practices (BMPs) are recommended during construction of the trail with two use surfaces:

- Wetting stockpiles as needed to decrease fugitive dust
- Minimizing the amount of disturbed surface
- Using street sweepers and water spray in areas where the trail and roadways intersect
- Ensuring all construction equipment is in proper working order
- Ensuring construction zones are closed to the general public

# 3.5 Safety and Noise

## 3.5.1 Introduction

This section identifies potential public safety hazards and noise impacts from the construction and operation of the Proposed Action and No Action alternatives.

#### 3.5.2 Affected Environment

The impact area of influence is the PRC and the area adjacent to the ROW of the PRC from 800 North in Orem to SR-92 in Lehi.

The area currently occupied by the PRC and other facilities is not used as a motorized travel route, except when maintenance vehicles travel along the canal for maintenance and operation activities. The presence of these vehicles does not generally increase noise in the area. The main source of noise in the area is local traffic in the neighborhoods adjacent to the canal.

The canal is not a drainage feature. All stormwater drainage within the communities located adjacent to the canal drains into municipal stormwater drains. As part of the canal enclosure drainage features would be constructed for stormwater runoff on top of the enclosed canal.

## **3.5.2.1** Fencing

Much of the canal ROW is fenced; public access is prohibited within the PRC ROW. Much of the fence along the ROW has been constructed by property owners adjacent to the PRC. Fencing is also for safety reasons and keeps the public from entering the canal area and accidentally falling into the canal, or having any other accident. Not all of the fencing was constructed by the canal company, and in fact the corridor is a collection of mixed private fences both with and without gates connecting private property. The fences are there to protect the public from accidents and to prevent trespassing.

# 3.5.3 Impact Analysis

#### 3.5.3.1 No Action Alternative

Under the No Action alternative there would not be any long term noise impacts associated with the continued operation and maintenance of the PRC and other federal facilities within the canal ROW. There may be a temporary increase in noise during some maintenance activities on the enclosed canal, or on other facilities within the ROW. These impacts would not be significant and should not interrupt any other activities adjacent to the canal.

A concern brought up by the community related to the safety of adjacent property owners is drainage once the canal is enclosed. The canal enclosure will be designed to contain any additional drainage from the enclosed canal area. Drainage features will be constructed that would prevent flooding of down gradient property owners. These features will be constructed as part of the canal enclosure project.

#### **Fencing**

All fences that are not located on PRC ROW would still be in place around the enclosed and covered canal. PRWUA will also be replacing some of its fencing once the canal is enclosed. Property owners who have constructed fences on PRC ROW will have their fences removed during the enclosure project. The property owner can reconstruct their fence on their property. PRWUA or Reclamation will not pay for the construction of any private fences.

## 3.5.3.2 Proposed Action Alternative

During the construction of the trail, there would be an increase in the general noise level in the area from construction equipment. This would be a temporary impact and would end as soon as construction is completed. Construction activities would be in accordance with any noise ordinances of the county and the cities. There could also be an increase in the general ambient noise along the proposed trail corridor. This increase would be from non-motorized activities along the trail including, but not limited to, bicycles, horses, and picnics at the improved park areas. There has not been any specific noise monitoring on this project for these activities along the corridor. However, the increase in ambient noise from non-motorized recreational activities is not expected to be substantial.

There has been some concern voiced by the public concerning drainage from the enclosed canal area. The public is concerned that their property may be flooded during large storm events. Drainage has been designed into the PRC enclosure, which will provide protection to property owners. Drainage would also be part of the trail design as well, and down gradient property owners should be protected from any runoff from the trail area.

Safety features at all trail/roadway intersections would be constructed as part of the trail. There would be signs placed on the roadway and on the trail alerting the public to the trail crossing of the roadway, and there would be crosswalks painted on the roadway. These features will help protect individuals crossing the roadways. There will also be several locations, listed in **Table 3.1**, where the trail will go under the roadway. These areas would provide even greater security for the public as they would not have to cross a roadway.

**Table 3.1 – Proposed Trail Underpass Locations** 

1200 West, Lehi (not a through street yet)		
Center Street, Lehi		
1200 East, Lehi		
10150 North, Highland		
State Road 74, Highland		
4800 West, Highland		
Canyon Road, Pleasant Grove		
200 South, Lindon		
1600 North, Orem		
800 East, Orem		

Source: Psomas, 2007

# Fencing

The PRWUA will not remove fences that are located out of their ROW during the construction for the canal enclosure. Also, the trail construction project does not plan to remove any privately owned fences. Any fence that has been constructed on PRC ROW will be removed during the enclosure of the canal. Property owners who have a fence removed during the enclosure project would be allowed to reconstruct their fence on their property. The cost of reconstructing the fence would be the responsibility of the property owner. Constructing a private fence or placing landscaping to keep the general public from entering private property would provide safety for the property owners adjacent to the trail. PRWUA, Utah County, or the cities along the proposed trail corridor will not be responsible for the costs of constructing private fences. Some landscaping is planned as part of the trail construction. If a property owner would like to construct a fence on their property they will have to pay for the cost of the fence. Bollards and some fencing would be placed at all street crossing to deter motorized vehicles from entering the trail, as the trail would be a non-motorized use area. The fencing or bollards placed at the street crossings would be part of the proposed trail construction.

There are some neighborhood areas that have created private parks that can only be accessed by members of the Home Owners Association (HOA). Some of these parks have trails that could connect to the canal trail. The HOA will be responsible for gating the trail connection if they want the HOA private parks to remain closed to the general public.

After implementing mitigation measures, there would be no significant impacts to safety and noise.

# 3.5.4 Mitigation Measures

The following BMPs are recommended during construction of the trail:

- Work on the trail only during the day
- Shut down equipment when it is not being used
- Comply with all applicable noise ordinance rules/regulation

Noise from the general public using the trail and trail facilities would be mitigated by constructing trail facilities as far from adjacent property owners as possible. Safety concerns of adjacent property owners could be mitigated by home owners constructing their own fences on their property. These fences would not be paid for as part of the trail construction and would be the sole responsibility of the property owner.

# 3.6 Transportation

## 3.6.1 Introduction

The transportation section discusses potential impacts to vehicular transportation systems and non-motorized transportation systems (i.e. trails and sidewalks).

### 3.6.2 Affected Environment

The impact area of influence for transportation includes roads that would be used during construction, operation, and maintenance of the Proposed Action and the No Action Alternatives. It also includes the trails and sidewalks adjacent to the PRC ROW, which the PRC intersects or crosses under.

The trail would extend from the intersection of the canal and SR-92 in Lehi to the intersection of the canal and 800 North in Orem (**Figure 2.1**). The PRC is crossed by 29 roadways in this area, each of which will serve as access to the project area. **Table 3.2** lists these roadways.

Number Location 1 Center Street, Lehi 2 600 East, Lehi 3 1200 East, Lehi 4 10150 North, Highland 5 6400 West, Highland 6 6000 West, Highland 7 State Road 74, Highland 8 4800 West, Highland 9 4500 West, Cedar Hills 10 4000 West, Pleasant Grove 11 Canyon Road, Pleasant Grove 12 1560 North, Pleasant Grove 13 1100 North, Pleasant Grove 14 Grove Creek Drive (500 North), Pleasant Grove 15 100 North, Pleasant Grove 16 200 South, Pleasant Grove 775 South, Pleasant Grove 17 18 1500 East, Pleasant Grove 19 400 North, Lindon 20 200 South, Lindon

Table 3.2 – Provo Reservoir Canal Street Crossings

Number	Location
21	400 East 1600 North, Orem
22	750 East, Orem
23	800 East, Orem
24	1200 North, Orem

Source: Provo Reservoir Canal Enclosure Project EA, 2003

Currently, there are only two pedestrian only crossings of the canal, one is located near North Ridge Elementary School in Orem and it is used for school access and the other is located at 200 North in Lindon. This crossing will be maintained after the canal is enclosed. There are no other authorized trail crossings of the canal. The only vehicles allowed within the canal ROW are those used to operate and maintain the canal, or other facilities legally within the ROW. The canal ROW is not an authorized travel or recreation route for the general public.

# 3.6.3 Impact Analysis

#### 3.6.3.1 No Action Alternative

There could be long-term impacts to transportation from the No Action alternative. The trail would not be constructed on the enclosed canal and it would remain closed to the general public. PRWUA and other authorized vehicles could still enter the PRC ROW in order to perform maintenance on the enclosed PRC or on other federal facilities. Because there would not be a trail constructed on top of the enclosed canal the route could not be used for commuting purposes. This would be a negative impact to those in the public wishing to use the corridor as a commuting route.

The communities in which the PRC passes have trail objectives which involve connecting other trails to the PRC. If a trail is not authorized on top of the enclosed canal this would impact the county and city trail plans because existing and proposed trails would not be allowed to connect to the PRC ROW. There would be several trails that would not be able to make connections to other existing trails including, but not limited to, the Utah Southern Rail Trail, the Jordan Parkway Trail, the Shoreline Trail, and the Provo River Parkway Trail.

Transportation on existing roads that intersect the canal would continue under current and future planned roadway conditions.

#### 3.6.3.2 Proposed Action Alternative

The Proposed Action alternative would create short and long-term direct impacts to the roadways and to the trails and sidewalks in the area. The short-term impacts would be created during construction of the trail segments. During construction activities, construction vehicles would need to use the roadways to access the trail areas. While construction vehicles are accessing the construction areas, there could be short delays for vehicle traffic using the roadways in the areas of trail construction. There are no anticipated road closures during construction of the trail, just temporary delays due to trucks entering and exiting the roadways to access the trail areas.

Long-term impacts would generally affect non-motorized travel on the trail system. As there is currently no trail system on the enclosed canal, the construction of a trail system would

create new areas for non-motorized activity including, but not limited to, equestrian, bicycle, and pedestrian use. The new trail system could also create a travel route for bicycle commuters. There would be trail access points at all roadway/trail intersections.

There are several trails planned within the county and municipalities in which the PRC crosses. Some of these trails would intersect the trail on the enclosed PRC and provide connections to other trails. Some of the trails which the PRC trail could provide access to are the Utah Southern Rail Trail, the Shoreline Trial, the Jordan Parkway Trail (through other connecting trails), and the Provo River Parkway Trail. The PRC trail would also connect to several local trails which provide access to neighborhoods and city parks.

Operation and maintenance activities for the PRC and other facilities within the PRC ROW would continue after the construction of the trail. These activities would take priority over any trail activities. PRWUA and other authorized vehicles would still be able to access the facilities. Trail maintenance vehicles could also access the trail area. These would be the only motorized vehicles allowed to access the area. Features would be added at all roadway/trail intersections to deter non-authorized vehicles from entering the PRC ROW.

If PRC maintenance requires excavation activities, the trail would be temporarily closed during maintenance. Restoration of the trail segment affected by PRC maintenance would be the responsibility of the respective city or Utah County.

There would be beneficial long-term impacts to transportation resources, especially for people using the trail for transportation, from the proposed action.

# 3.6.4 Mitigation Measures

During construction of the trail, signs notifying the public of the construction will be placed near trail/roadway intersections. If there are going to be any traffic delays associated with trail construction, there would be appropriate signage for the delays and detour routes identified.

To make traveling on the trail safer and to make vehicle travel safer, crosswalks will be painted and signs will be placed at all at-grade trail/roadway intersections. There would also be signing along the trail for mileage, trail rules, and facility locations.

#### 3.7 Socioeconomics

#### 3.7.1 Introduction

This section describes social and economic aspects of the human environment that may be affected by the proposed action. Potential impacts to socioeconomic conditions from the Proposed and No Action alternatives are described in this section.

#### 3.7.2 Affected Environment

For this study, Utah County is the impact area for analyzing socioeconomic resource impacts. The construction of a trail on top of the enclosed PRC could affect socioeconomic resources in three ways: (1) recreation access; (2) roadway/trail crossings (community cohesion); and

(3) activities related to the operation and maintenance of the PRC and other facilities within the project area. This section describes the affected environment for these three elements.

Utah County is the second largest county, in terms of population, in the State of Utah and it continues to grow at a rapid rate. A majority of the land adjacent to the canal corridor is urbanized, with little remaining open space. There is approximately four miles of the corridor that borders farmland and undeveloped land.

## 3.7.2.1 Recreation Resources

Recreation opportunities carry local and regional economic benefits, as well as social implications.

The corridor of the PRC is seen by many interested parties as an ideal resource for the creation of a public trail or other related recreational assets. Local and regional economic benefits could result from such recreational use of the canal corridor. Both PRWUA and Reclamation have expressed willingness to consider the implementation of recreation-related proposals using the canal corridor once the PRC has been enclosed. During the decision making process for any development issues, including recreational facilities/usage, Reclamation will consult with the PRWUA. Consensus among all parties involved will be sought before actions will be approved.

With respect to the development of possible recreational opportunities along the PRC once the canal is enclosed, both PRWUA and Reclamation have expressed a willingness to support such development. Utah County and the municipalities in which the canal corridor passes through will be responsible for additional construction and maintenance costs for additional development. According to Utah County General Plan Objective 12, Utah County proposes to "establish recreational areas which encourage a sense of community and provide pleasant, useful, relaxing areas which appeal to the general public."

# <u>Park, Recreation Facilities, Wildlife and Waterfowl Refuges, and Historic Properties Evaluated Relative to the Requirements of Section 4(f)</u>

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C. 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." Section 4(f) specifies that "the Secretary [of Transportation] may approve a transportation program or project . . . requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- 1. There is no prudent and feasible alternative to using that land; and
- 2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use."

Section 4(f) further states "The Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with

the States, in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities."

Following the enclosure of the PRC, there will not be any 4(f) resources present in the project area. The impacts to any historical resources that currently exist were addressed in the Provo Reservoir Canal Enclosure EA and FONSI that was completed April 30, 2003. The Determination of Eligibility and Finding of Effect (DOE/FOE) and the Native American consultation letters for the PRC Enclosure EA and FONSI are included in **Appendix A.** Additionally, there are not currently any parks, recreation areas, wildlife refuges, or waterfowl refuges in the project area. However, there are numerous planned parks and recreation areas adjacent to the project area. FHWA does not anticipate there being any impact to any of the planned parks or recreation areas from the construction of the Provo Reservoir Canal Trail. If any of the planned parks or recreation areas are completed before the completion of the Provo Reservoir Canal Trail, any impacts to these planned parks or recreation areas resulting from the construction of the Provo Reservoir Canal Trail would be excluded from Section 4(f) analysis per the conditions of the "FHWA Negative Declaration/Section 4(f) Statement for Independent Bikeway or Walkway Construction Projects" dated May 23, 1977."

## 3.7.2.2 Roadway/Trail Crossings (Community Cohesion)

The PRC corridor traverses both highly urbanized and rapidly developing areas. Numerous easements and ROW for roadway crossings exist on the canal corridor within the project area, granted by Reclamation, with the consent of the PRWUA. It is anticipated that this trend will continue, with numerous future requests for easements and ROW, particularly for transportation purposes, being made by developers, utility companies, and city and county officials. The uses enabled by these easements and ROW represent important economic benefits for the adjacent communities. It is the current policy to consider what impacts a request would have on PRC and other facilities with the ROW operation. If no negative impacts are determined, the use is granted and a fair market value is charged for the use, as well as staff costs to evaluate and issue permits by Reclamation and PRWUA. The PRC ROW currently functions as a break in the community. Because community members are not allowed access to the corridor they have to find routes around the PRC to get to the other side of the community. The communities, which are split by the PRC ROW, are not as cohesive as communities that do not have a large feature which splits their communities.

# 3.7.2.3 Operation and Maintenance of the PRC and Other Facilities within the ROW

After the PRC is enclosed, the PRWUA will continue operation and maintenance activities. These activities can vary from inspection of the enclosed canal to construction activities related to maintenance or upgrades to the system. Other facilities within the PRC ROW also require continual operation and maintenance activities to make sure the facilities are working properly. These activities will take priority over any other activities within the ROW. It is imperative that the operation of the PRC and other facilities within the PRC ROW continue to operate correctly, as this is the primary function of this area.

# 3.7.3 Impact Analysis

#### 3.7.3.1 No Action Alternative

Under the No Action alternative PRWUA would continue to operate and maintain the enclosed facilities. Other authorized users would continue to operate in the same way. The PRWUA would continue to make deliveries to its subscribers through the enclosed canal as it does at present.

New requests to develop facilities, including roadways, within the PRC ROW would be made to the PRWUA and Reclamation.

No trail would be constructed on top of the enclosed PRC, and recreational activities within the PRC ROW would still be considered trespassing. There would be negative impacts to recreational resources and community cohesion. Because the PRC ROW would not be used for a trail the potential for recreation along the corridor would be lost. Also, many people would use the trail to connect to members of their community on the other side of the canal. If there was no trail, it would take more time to go around the canal ROW to community events on the other side. This would impair community cohesion.

## 3.7.3.2 Proposed Action Alternative

Under the proposed action, the PRWUA would continue to make deliveries to its subscribers through the canal as it does at present.

Nearly 15 years ago, the City of Orem approached Reclamation and PRWUA regarding the feasibility of the PRC corridor for a non-motorized trail. PRWUA and Reclamation believed that while the canal was still open there would be a significant and unacceptable public safety risk to allow the general public access to the canal corridor. Since the canal will now be enclosed, the safety risk from an open canal will be removed.

The PRWUA will not provide additional funding beyond the \$11.75 million already obtained to construct a trail system on the enclosed canal. This funding will come from an earmarked fund for FHWA. The cities and/or the county has to pay the matching funds for the construction of the trail. Any additional funding needed to construct the trail will be the responsibility of the county and the cities in which the trail would be constructed. The trail would only be permitted for non-motorized use. The only vehicles allowed on the trail would be those used by PRWUA and others that have authorized facilities within the PRC ROW. There would also be maintenance vehicles allowed in to work on the trail.

PRWUA and representatives of Utah County and interested municipalities will negotiate fair and equitable terms for construction and operation of the trail on the enclosed PRC. These terms will not interfere with the use, operation, or maintenance of the canal. Once these terms are agreed upon, PRWUA will allow access for recreation use of the enclosed PRC. This understanding is documented in Article 8 of the Title Transfer Agreement.

Creating a trail on the enclosed PRC would provide the communities with a large recreation area and open space. During scoping activities, it was noted that bicyclists, runners, walkers, equestrians, and other recreationists would use the trail with two use surfaces. The trail would provide a connection to the Provo River Parkway Trail and to the Utah Southern Rail

Trail. The trail would also provide connections to other trails within the area that connect to community parks and schools.

Not only would the trail provide a great recreation opportunity, but they would also provide a commuting route for some individuals near the project area. This commuting opportunity would provide a way for individuals to save on the expense of gas and a reduction in fuel emissions. An indirect impact could be the lowered maintenance costs for vehicles because people would be riding their bikes to work instead of driving.

The construction and operation of the trail would provide an opportunity for social gathering areas within the communities in which the trail traverse. This opportunity could increase the community cohesion within the area.

Under the Proposed Action, the PRWUA would continue to review requests for ROW and other licensed uses related to the PRC ROW. All other authorized uses within the project area would continue.

Any maintenance of the trail would be conducted by the county or local municipalities. The trail could be used by the general public for free. There would be no costs associated with using the trail; however there would be a cost associated with obtaining the agreement to construct the trail. Details of the cost for the agreement have not been finalized.

There would be no significant negative impacts to socioeconomic resources. There would be beneficial impacts to recreation and community cohesion from the Proposed Action.

# 3.7.4 Mitigation Measures

The public will be adequately notified of any impacts to recreation or other facilities during construction and operation of the trail. Measures will be taken to minimize the noise or temporary closures due to construction activities. The public will be notified of any temporary closures to public access that may be required during construction.

# 3.8 Environmental Justice

Executive Order 12898 established environmental justice as a federal agency priority to ensure that minority and low-income groups are not disproportionately affected by federal actions. The impact area of influence is the adjacent land owners to the enclosed PRC from 800 North in Orem to SR-92 in Lehi. Through a review of the United States 2000 Census information and socioeconomic data available for Utah County, populations that could potentially be affected by the proposed trail construction were evaluated. No predominantly low-income, minority, or Native American populations were identified in the affected area. Therefore, implementation of the Proposed Action alternative would not disproportionately (unequally) affect any low-income or minority communities within the project area.

## 3.9 Visual Resources

#### 3.9.1 Introduction

This section addresses potential impacts on visual resources from the construction and operation of the Proposed Action and the No Action alternatives.

#### 3.9.2 Affected Environment

The impact area of influence for visual resources is the area adjacent to the alignment of the enclosed PRC from 800 North in Orem to SR-92 in Lehi.

The PRC will be enclosed, and this will be the affected environment. A person viewing the PRC ROW from an adjacent property would see an area which has been filled in with soil and rocks, and which has been graded. The enclosed PRC will be underneath the fill material. The only indication of the enclosed canal would be areas located along the top of the enclosed PRC which would contain a structure used by water operators to vent or to access the enclosed canal for operation and maintenance activities. These structures would be placed at least every 2,500 feet (**Figure 3.2** is an example of what one of these structures may look like).



Figure 3.2 – Example of Venting/Operations Structure that Would be Visible throughout the Corridor

The area would look like an undeveloped area with a dirt road on it that would be used for maintenance and operation activities for the enclosed PRC and other facilities within the PRC ROW. The area would be re-vegetated with grasses and other native species.

# 3.9.3 Impact Analysis

#### 3.9.3.1 No Action Alternative

Under the No Action alternative, there would not be any impacts to the visual appearance of the enclosed canal. The area would remain the same, a dirt covered area with a dirt road within the PRC ROW used for maintenance and operation activities.

## 3.9.3.2 Proposed Action Alternative

Under the Proposed Action alternative, a trail with two use surfaces would be constructed on top of the enclosed PRC. One surface would be soft and could be used for equestrian use, or for other activities in which people enjoy a soft surface. The other surface would be hard, likely asphalt. This surface could be used by anyone wanting a hard surface such as walkers or bicyclists using a road bike.

Minimal landscaping that could survive without irrigation would be provided. Trailhead facilities would also be constructed. Some of the trailhead/park facilities would have restrooms and picnicking areas.

As part of the trail construction, there would be safe crossing areas designed at each of the road crossings. Some of the roadway crossings would also have underpasses constructed for the trail users.

The undeveloped area on top of the enclosed canal would be developed with a trail and trail facilities. Below are some examples of what the trail could look like after construction. The developed trail would be more visually appealing than the undeveloped dirt area.

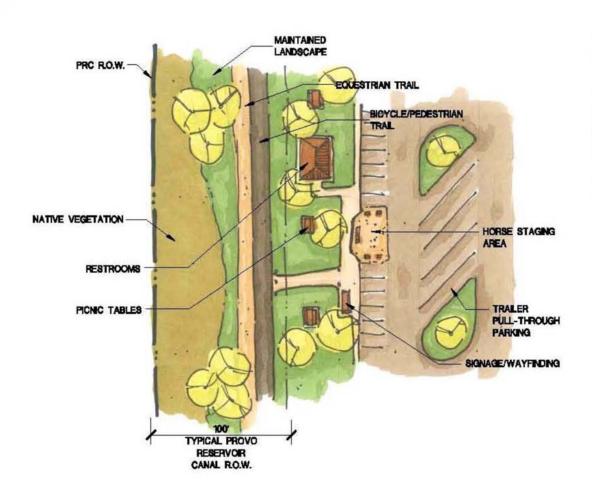


Figure 3.3 – Example of a Trailhead (Not all trailheads will have equestrian staging areas and trailer parking)

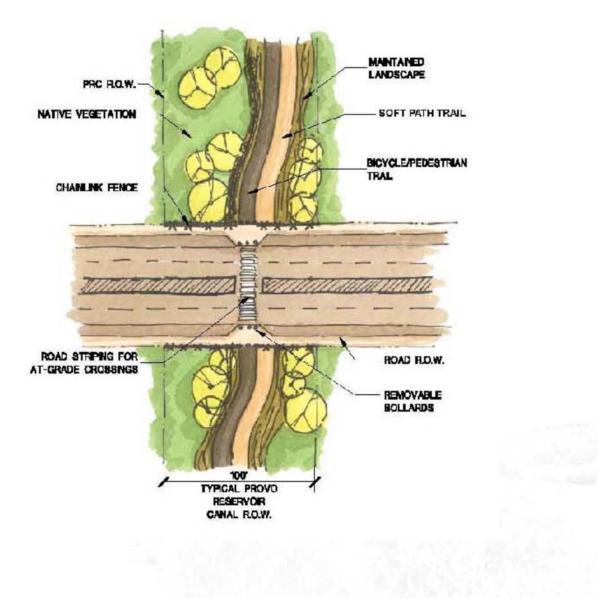


Figure 3.4 – Overhead view of hard and soft surface trails and an Example of a Trail/Street Crossing

PRC and other maintenance vehicles would use the trail to access their facilities. This would not be an every day occurrence, but it is likely that trail users, or property owners who can see the trail, would see these vehicles only occasionally.

# 3.9.4 Mitigation Measures

Principles of Context Sensitive Solutions have been examined to determine if special design considerations need to be evaluated to avoid visual impacts. The trail will be designed and constructed in a manner that allows the trail to become part of the surrounding area and does not stand out negatively, but provides a valued open space in the community.

Other mitigation measures will include:

- Proper maintenance (coordinated by Utah County and the local municipalities) to avoid landscapes or trail structures becoming "eyesores" resulting from neglect
- Architectural treatment considerations for the trail facilities so they fit within the context of the communities
- Proper maintenance of signs along the trail and at trail/road intersections

### 3.10 Wildlife Resources

### 3.10.1 Introduction

This section addresses potential impacts to wildlife resources from the Proposed Action and No Action alternatives.

#### 3.10.2 Affected Environment

The impact area of influence for wildlife resources includes the enclosed PRC area and the lands located immediately adjacent to the PRC ROW.

The enclosed PRC would be re-vegetated to create a shrub/grassland ecosystem. However, since the area is currently highly impacted by urban development, the habitat would still not be highly desirable to wildlife.

Habitat area is limited due to the degree of urban and suburban development surrounding the majority of the project area. All of the project area is within lands that have been previously disturbed by urban development, farming or other utility development. Original topography has largely been altered; most of the area surrounding the PRC has been contoured or reshaped to incorporate the existing land alterations. Numerous primary and secondary roads that supply and access the surrounding housing and urban development transect the PRC corridor. As a result of these land-disturbing activities, plant communities are generally limited. The dominant vegetation types in non-farmland areas include grasses dominated by crested wheatgrass (*Agropyron cristatum*) and cheatgrass (*Bromus tectorum*). Farmlands are limited due to encroaching urban development.

Numerous species of non-native and noxious weeds occur throughout the PRC corridor.

# 3.10.3 Impact Analysis

### 3.10.3.1 No Action Alternative

Under the No Action alternative the habitat and wildlife resources would remain in their current condition. The enclosed PRC area will continue to lack any habitat for wildlife.

## 3.10.3.2 Proposed Action Alternative

Under the Proposed Action, more shrubs, grasses, and other drought tolerant plants would be planted as part of the trail construction. These additional plants within the project area would

create some wildlife habitat, especially for birds in the area that use shrubs for nesting and foraging habitat. There are no water features currently planned for the trail.

Because the trail would likely be heavily used by the general public, some wildlife species would not come to the area as they would be scared off by the public. Other, small foraging species may be attracted to the area because they are not generally scared of humans and the vegetation would provide some additional habitat.

There would be no significant impacts to wildlife resources.

# 3.10.4 Mitigation Measures

To help prevent the introduction of unwanted wildlife to the area, proper maintenance of trail and trail facilities will be conducted. This would include trail cleanup activities and trash removal from the trailhead facilities.

# 3.11 Unavoidable Adverse Impacts

This section describes unavoidable adverse impacts that would occur under the proposed action. Unavoidable adverse impacts may include temporary impacts, mitigated impacts, and impacts that remain after mitigation. It is the unavoidable adverse impacts that remain after mitigation which determine whether these impacts area acceptable and if a Finding of No Significant Impact (FONSI) by FHWA and Reclamation is appropriate.

Construction through the urban and suburban areas will create noise and dust in residential areas and minor traffic disruptions at the trail/roadway intersections. These impacts will be short term. In addition, land will be disturbed during construction within the ROW, giving some opportunity for erosion during storm events and increased spread of weeds.

Residents living adjacent to the trail would be impacted by minor increases in general noise levels from the public's use of the trail next to their homes. This would be a long-term impact to the property owners adjacent to the trail. No other unavoidable adverse impacts have been identified.

# 3.12 Cumulative Impacts

## 3.12.1 Introduction

The NEPA and CEQ Regulations for Implementing the Procedural Provision of NEPA (40 CFR Part 1500-1508) require federal agencies to consider the cumulative impacts of their actions. As stated at 40 CFR 1508.7, cumulative impacts are the impacts on the environment which result from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. Cumulative impacts are based on impacts that remain after mitigation.

# 3.12.2 Interrelated Projects

This section describes other past, present and reasonably foreseeable future projects that, in conjunction with the Proposed Action, could contribute to cumulative impacts. These projects are referred to as interrelated projects.

## **3.12.2.1 Past Project**

The enclosure of the PRC will happen before the construction of the trail within the PRC ROW would be allowed; therefore the enclosure of the PRC will be considered a past project.

## 3.12.2.2 Current Projects

Currently, a project is being completed to analyze the environmental impacts of widening SR-92 from I-15 to SR-146. Because the proposed action would terminate at the intersection of the canal and SR-92, the SR-92 environmental study is considered a current project that could contribute to cumulative impacts in the area. The construction of SR-92 will likely be done long before the construction of the trail on top of the enclosed PRC.

Reclamation has recently been asked to do a new EA on whether to authorize the enclosed PRC to have an increased capacity, from 550 cubic feet per second (cfs) to 623 cfs, from the point of the future Utah Lake System (ULS) pipeline tie-in northward to the canal terminus (approximately 800 North in Orem).

The Utah Southern Rail Trail is partially constructed and will continue to be constructed over the next several years. As discussed in Chapter 2, the PRC trail would provide a connection to the rail trail. The Provo River Parkway Trail is located near the southern terminus (800 North) of the PRC Trail. The PRC Trail would provide a connection to the Provo River Parkway Trail.

There are new home developments currently being constructed near the northern end of the proposed trail close to SR-92 in Lehi.

#### 3.12.2.3 Foreseeable Future Actions

The CUWCD proposes to construct a 36-inch diameter pipeline from the Alpine Aqueduct Reach 3 parallel to the PRC to approximately 4800 West in Highland and it will need to cross under the PRC as do the existing aqueducts. This pipeline will convey CUO and other water supplies. The project will be constructed on Reclamation federal reserved ROW. The project is related because it will parallel the PRC in the PRC and Alpine Aqueduct Reach 3 and Jordan Aqueduct Reach No. 4 alignments.

The CUWCD is currently constructing a segment of the Utah Lake System Project (ULS). The ULS will deliver water from Strawberry Reservoir and project water from other sources to meet some of the future water demands in the Wasatch Front Area. The new pipeline would connect to the existing PRC at 800 North. This pipeline is expected to be in operation by 2021 and could necessitate a change in capacity of the PRC from 800 North northward to the canal terminus at the Point of the Mountain.

There are several community trails planned within Utah County and the communities in which the PRC traverses. These plans are not fully developed yet, but there will likely be several connections from these trails to the proposed trail and so they are included as a project that may cause cumulative impacts.

# 3.12.3 Impact Analysis

As stated in Chapter 1, the PRWUA and Reclamation propose to grant access to Utah County and the municipalities along the PRC, to construct a trail system on the enclosed PRC. The proposed action would allow the public to access the PRC ROW for non-motorized recreation and commuting purposes. The proposed action would facilitate the creation of a public recreation area on top of the enclosed PRC.

Air quality impacts from the proposed action and cumulative actions would not cause any long-term cumulative impacts. Air impacts from these projects would be short-term, but could cause cumulative short-term impacts to air quality if the projects were to be constructed during the same time period. Fugitive dust from construction of several projects at once could cause increased health concerns for those in the area that have sensitivity to air quality, such as people with asthma. These concerns should dissipate once construction activities stop.

There are no known cumulative impacts to safety associated with the proposed action and related actions. There could be short-term cumulative noise impacts associated with the proposed action and related actions. The noise impacts would be due to many construction activities occurring at one time. The noise from construction would end once construction activities were completed and there should not be any long-term cumulative noise impacts.

Because there are many trails currently being developed in Utah County, there will be a significant increase in available recreation areas. This will be a cumulative impact on the recreation resources within Utah County, by increasing the resources over several years. This impact is a beneficial impact because of the increase in recreation resources within the communities.

As more trails are developed in areas that are not developed, it would likely increase the visual value of the area. Visual resources should be cumulatively impacted in a beneficial way because of the increase of developed trails in communities instead of undeveloped open areas that are generally not useable by the public.

# 3.13 Short-Term Use of the Environment Versus Long-Term Productivity

The purpose of this section is to provide a broad overview of the effects that construction and implementation of the Proposed Action would have on the long-term productivity of the environment.

Because the PRC will already be enclosed and operations would be maintained throughout and after the construction of the Proposed Action, no loss of productivity would occur from the Proposed Action.

The environment within the project area is not productive for uses other than operation of the PRC and other federal facilities. The Proposed Action would convert the area on top of the enclosed PRC to trail use, thus creating a useable open space within the communities. This creation of useable open space would increase the productivity of the project area.

## 3.14 Irreversible and Irretrievable Commitment of Resources

This section identifies resources that would be irreversibly (cannot be reversed, repealed or annulled) or irretrievably (cannot be retrieved, recovered, restored or recalled) committed to the Proposed Action.

Use or loss of the following resources would be irreversible and irretrievable:

- Materials used during construction
- An unknown amount of fuel that would be consumed during construction and operation
- Funds used for project construction and operation

# 4.0 CONSULTATION, COORDINATION, AND PUBLIC INVOLVEMENT

Chapter 4 describes the process for agency coordination and public involvement undertaken by federal, state and local agencies for the Provo Reservoir Canal Trail (PRCT) EA. Because effective agency coordination and public involvement are critical to the success of any trail project, the goal for the PRCT project was to ensure that both the public and agencies were involved and informed about project planning and environmental review throughout the EA process.

# 4.1 Description of the NEPA Process

Compliance with NEPA is a federal responsibility and involves the participation of federal, state, tribal, and local agencies, and the interested public in the planning process. NEPA requires full disclosure regarding major actions taken by federal agencies and accompanying alternatives, impacts, and possible mitigation.

# 4.2 Scoping

Reclamation, FHWA and UDOT initiated the public scoping process for this proposed action on March 22, 2008, when scoping letters were sent to approximately 1,100 interested parties, organizations, and agencies. The mailing list included interested federal, state, and local government agencies, private interest groups, businesses, and owners of property located adjacent to the area proposed for the trail. The letter gave a brief summary of the proposed action, explained briefly the NEPA process, and announced the date of the public open house.

This mailing included a contact person, phone number, and address where comments or questions could be sent prior to the public open house. The public open house was held on April 10, 2008 in Pleasant Grove at the Pleasant Grove Junior High School from 4:00-7:00 pm. The purpose of the meeting was to provide information on the proposed action to the interested public, as well as to receive scoping comments from the public. Comments could also be submitted via mail or e-mail until the end of the scoping period, May 12, 2008.

Over 100 people attending the scoping meeting and a total of 89 scoping comment forms were received from the public during and after the public meeting. The following items were presented:

- Meeting objectives
- NEPA project process
- Project schedule
- Opportunities to become involved
- Project contact information

- Opportunity to comment
- Conceptual trail designs

All scoping comments received were considered in the preparation of this EA. A letter responding to scoping comments was sent to all who commented during the scoping period. Issues raised during scoping are summarized in Table 4.1.

Table 4.1 – Issues that were Raised during Scoping

Issue	How Many People Raised the Issue	Where Addressed
Trail Materials	20	Sections 2.4.1 and 3.9
Trail Maintenance,	53	Sections 2.1, 2.4, 3.6, 3.7,
including:		3.9, and 3.10
<ul><li>Parties responsible</li></ul>		3.7, and 3.10
for maintenance		
Landscaping		
Trailheads (location		
and amenities)		
Lighting		
Safety/Privacy, including	31	Sections 2.4, 3.3, 3.5, and
Motorized vehicles	31	3.7
		3.7
Drainage     Drivete perly		
Private parks		
• Lighting		
<ul> <li>Vegetation for</li> </ul>		
privacy	35	T1
In Support of the Trail	33	These comments were all
Project		in support of the construction of the trail
		and are not specifically
		addressed in the EA.
Noise Concerns	4	Sections 2.6.2.4, 3.5, 3.7,
Troise Collectus	7	and 3.11
Canal Enclosure	8	Canal enclosure issues are
Canar Enclosure	o o	addressed in the Provo
		Reservoir Canal
		Enclosure EA.
Will taxes be increased to	1	There will probably not be
build and maintain the trail?		a tax increase associated
		with constructing or
		maintaining the trail.

Issue	How Many People Raised the Issue	Where Addressed
Plantings and some maintenance could be done by Eagle Scout projects	1	This comment was not addressed in the document, however it has been passed along to Utah County

Source: URS, 2008

# 4.3 Draft Environmental Assessment Public Review and Opportunity to Comment

This section is currently left blank until the final EA is released.

# 4.4 Consultation with Other Agencies

In accordance with 40 C.F.R. 1501.6, Reclamation, FHWA and UDOT invited state and federal agencies to comment during the scoping process. One comment letter was received from Central Utah Water Conservancy District. The following agencies were invited to comment during the scoping process:

- Central Utah Water Conservancy District
- Utah County Public Works Department
- Jordan Valley Water Conservancy District
- Metropolitan Water District of Salt Lake & Sandy
- State Historic Preservation Office
- USEPA Region 8
- Utah Department of Environmental Quality
- Utah Department of Natural Resources
- US Fish and Wildlife Service
- Utah State Parks and Recreation
- US Department of the Interior CUP
- Uinta National Forest
- North Utah County Water Conservancy
- Orem Metro Water District
- Lehi Metro Water District
- State of Utah Governor's Office of Planning and Budget RDCC
- Mountainland Association of Governments

### 4.5 Environmental Assessment Distribution

The draft EA was sent to the following agencies and groups:

- Federal Highway Administration
- U.S. Department of Interior, Bureau of Reclamation
- Utah Department of Transportation
- Provo River Water Users Association
- Central Utah Water Conservancy District
- Utah County
- Jordan Valley Water Conservancy District
- Metropolitan Water District of Salt Lake & Sandy

### 5.0 MITIGATION COMMITMENTS

CEQ NEPA regulations require that mitigation "and other conditions established in the (EA) or during its review and committed as part of the decision shall be implemented by the lead agency and other appropriate consenting agency," (40 CFR 1505.3).

FHWA regulations require project sponsors "to implement those mitigation measures stated as commitments in the environmental documents prepared pursuant to this regulation. The FHWA will assure that this is accomplished as a part of its program management responsibilities that include reviews of designs, plans, specifications, and estimates (PS&E), and construction inspections." The regulations further state that, as a condition of federal-aid project agreements, state agencies must "ensure that the project is constructed in accordance with and incorporates all committed environmental impact mitigation measures listed in approved environmental documents," (23 CFR 771.109).

This section describes the proposed mitigation measures and commitments made to resource and other agencies with permitting authority, and other environmental and design commitments made on behalf of the Provo Reservoir Canal Trail project.

### 5.1 Land Use and Land Ownership

The project will be consistent with and will be designed to implement the goals and objectives of the county and city general plans for development in the area.

Because the operation and maintenance of the PRC and other facilities within the ROW are the primary use of the land, these activities must be allowed to continue during trail construction. Trail construction will temporarily stop, if needed, when activities need to occur on the enclosed PRC or other authorized facilities within the ROW.

### 5.2 Air Quality

The following Best Management Practices (BMPs) will be followed during construction of the trail:

- Wetting stockpiles as needed to decrease fugitive dust
- Minimizing the amount of disturbed surface
- Using street sweepers and water spray in areas where the trail and roadways intersect
- Ensuring all construction equipment is in proper working order
- Ensuring construction zones are closed to the general public

### 5.3 Safety and Noise

The following BMPs will be followed during construction of the trail:

- Work on the trail only during the day
- Shut down equipment when it is not being used

• Comply with all applicable noise ordinance rules/regulation

Noise from the general public using the trail and trail facilities would be mitigated by constructing trail facilities as far from adjacent property owners as possible. Safety concerns of adjacent property owners could be mitigated by home owners constructing their own fences on their property. These fences would not be paid for as part of the trail construction and would be the sole responsibility of the property owner.

### 5.4 Transportation

During construction of the trail, signs notifying the public of the construction will be placed near trail/roadway intersections. If there are going to be any traffic delays associated with trail construction, there would be appropriate signage for the delays and detour routes identified.

To make traveling on the trail safer and to make vehicle travel safer, crosswalks will be painted and signs will be placed at all at-grade trail/roadway intersections. There would also be signing along the trail for mileage, trail rules, and facility locations.

### 5.5 Socioeconomics

The public will be adequately notified of any impacts to recreation or other facilities during construction and operation of the trail. Measures will be taken to minimize the noise or temporary closures due to construction activities. The public will be notified of any temporary closures to public access that may be required during construction.

### 5.6 Visual Resources

Principles of Context Sensitive Solutions have been examined to determine if special design considerations need to be evaluated to avoid visual impacts. The trail will be designed and constructed in a manner that allows the trail to become part of the surrounding area and does not stand out negatively, but provides a valued open space in the community.

Other mitigation measures will include:

- Proper maintenance (coordinated by Utah County and the local municipalities) to avoid landscapes or trail structures becoming "eyesores" resulting from neglect
- Architectural treatment considerations for the trail facilities so they fit within the context of the communities
- Proper maintenance of signs along the trail and at trail/road intersections

### 5.7 Wildlife Resources

To help prevent the introduction of unwanted wildlife to the area, proper maintenance of trail and trail facilities will be conducted. This would include trail cleanup activities and trash removal from the trailhead facilities.

# 6.0 LIST OF PREPARERS

This EA was prepared and reviewed by the following individuals:

## Federal Highway Administration (Joint Lead Agency)

Name	Title	<b>Education/Experience</b>	Project Role
Anthony Sarhan	Area Engineer	MS Civil Engineering/	Reviewer
		6 Years	

# Bureau of Reclamation (Joint Lead Agency)

Name	Title	Education/Experience	Project Role
Kerry Schwartz	Manager, Water and	BS Range Science/	Reviewer
	Environmental	MPA Public	
	Resources Division	Administration/ 21	
		Years	
Beverley Heffernan	Chief,	BA History/ 21 Years	Reviewer
-	Environmental	-	
	Group		

# Utah Department of Transportation (Joint Lead Agency)

Name	Title	<b>Education/Experience</b>	Project Role
Philip Huff	Project Manager,	BS Civil Engineering/	Reviewer
	Region Three	35 Years	
Richard Crosland	Environmental	MA Anthropology/ BA	Reviewer
	Manager, Region	English/ 19 Years	
	Three		
Kevin Kilpatrick	NEPA Oversight	BS Applied	Reviewer
	Manager, Complex	Mathematics/ MS	
		Bioregional Planning/	
		5 Years	

### **Provo River Water Users Association**

Name	Title	<b>Education/Experience</b>	Project Role
Keith Denos	General Manager	BS Civil Engineering/	Reviewer
		MS Irrigation	
		Engineering/ 19 Years	
Jeffrey Budge	Operations &	BS Civil Engineering/	Reviewer
	Engineering	MS Civil Engineering/	
	Manager	23 Years	
Steve Cain	Facilities & Land	Associates in Risk	Preparer/Reviewer
	Manager	Management/ 32 Years	

# Utah County

Name	Title	<b>Education/Experience</b>	Project Role
Clyde Naylor	County Engineer/	BES Civil	Reviewer
	Public Works	Engineering/ MS	
	Director	Structural Engineering/	
		50 Years	

# URS Corporation (Consultant)

Name	Title	Education/Experience	Project Role
Valerie Porter	Project	MBA/BS Biology/	Preparer/Reviewer
	Manager/Lead	13 Years	_
	Environmental		
Rachel McQuillen	Principal In Charge	MS Civil Engineering/	Reviewer
		26 Years	
Richard Butler	Senior	Masters in Urban	Reviewer
	Environmental	Planning/ 34 Years	
	Consultant		
Christopher Ditton	GIS Lead	BS Geography (GIS	Preparer
		Emphasis)/ 9 Years	
Tim Witman	Ecologist	BS Environmental	Reviewer
		Studies and Geology/ 4	
		Years	
Deborah Jensen	GIS	GIS Certification/BA	Preparer
		Anthropology/ 3 Years	

### 7.0 REFERENCES

- American Fork (1996). American Fork General Plan, Volume 1 Part 4, Open Space and Trails Element. October 1996.

  <a href="http://www.afcity.com/DE\_PlanningDocuments.asp?drawer=Planning%20Commission&folder=General%20Plan">http://www.afcity.com/DE\_PlanningDocuments.asp?drawer=Planning%20Commission&folder=General%20Plan</a>
- Cedar Hills (1995) (2002). *Town of Cedar Hills General Plan 2005*. Revisions made on January 22, 1997 and June 18, 2002. http://www.cedarhills.org/government/planning\_commission/index.shtml
- DAQ (2008). State of Utah National Ambient Air Quality Standards, Areas of Non-Attainment and Maintenance. Updated July 2006.
- Enclosure EA (2003). Final Environmental Assessment and Finding of No Significant Impact for the Provo Reservoir Canal Enclosure Project, Provo River Project. United State Department of the Interior Bureau of Reclamation, Upper Colorado Region, Provo Area Office, Provo, Utah. April 2003.
- FHWA (1987). Guidance for Preparing and Processing Environmental and Section 4(F) Documents. T 6640.8A, U.S. Department of Transportation Federal Highway Administration, October 30, 1987.
- FHWA (2006). Memorandum: Interim Guidance on Air Toxic Analysis in NEPA Documents.
- Highland (2008). *Highland City General Plan Update*. February 2008. http://www.highlandcity.org/cgi-bin/hc/development.html
- Lehi (2001). *Lehi General Plan Land Use Element*. Prepared by Lehi City Planning Department, and adopted by Lehi City Council September 25, 2001. http://www.lehi-ut.gov/planning/generalplan.php
- Lindon (2006). *General Plan for Lindon City, Utah.* Adopted August 15, 2006. http://www.lindoncity.org/services.genplan.html
- Orem (2006). *Orem General Plan 2001*. Adopted February 13, 2001 and amended August 2006.
- Pleasant Grove (2007). *Pleasant Grove City General Plan*. June 2007. http://plgrove.org/index.php?option=com\_content&task=view&id=12&Itemid=18
- Psomas (2007). *Provo Reservoir Canal Greenway and Trail Plan, Final Draft.* Psomas, June 2007.

- Title Transfer EA (2004). Final Environmental Assessment and Finding of No Significant Impact for the Title Transfer of Provo Reservoir Canal, Salt Lake Aqueduct, and Pleasant Grove Property. Provo River Project. United State Department of the Interior Bureau of Reclamation, Upper Colorado Region, Provo Area Office, Provo, Utah. October 2004.
- UDEQ (2008). *Memorandum: Update of Utah Area Designation Recommendations for the* 2006 PM2.5 NAAQS. Prepared by Utah Department of Environmental Quality, Division of Air Quality. January 9, 2008. Reference: DAQ-094-07
- Utah (2007). *Utah County General Plan*, Prepared by the Utah County Community
  Development Department and recommended by the Utah County Planning
  Commission. The Plan was adopted by the County Legislative Body of Utah County,
  Utah on October 17, 2006. The Plan was amended on March 20, 2007.
  <a href="http://www.co.utah.ut.us/Dept/ComDev/Planning/GeneralPlan.asp">http://www.co.utah.ut.us/Dept/ComDev/Planning/GeneralPlan.asp</a>

# APPENDIX A

**Cultural/Historical and Native American Consultation** 



PRO-423 ENV-6.00

# United States Department of the Interior

**BUREAU OF RECLAMATION** 

Upper Colorado Region Provo Area Office 302 East 1860 South Provo, Utah 84606-7317

AUG 0 5 2002

Ms. Barbara Murphy Preservation Specialist Utah State Historic Preservation Office 300 Rio Grande Avenue Salt Lake City, UT 84101

Subject: Resubmission of Report and Request for Review for a Determination of Effect

for the Provo Reservoir Canal, Utah County, Utah (U-01-EP-0773s,p)

Dear Ms. Murphy:

Enclosed please find a report on the Provo Reservoir Canal Project from the US Bureau of Reclamation (Reclamation). This report was completed at the request of the Provo River Water Users and was sent to your office on June 3, 2002. It has been revised to include reevaluation of the determination of effect for some of the features and bridges located within the project area.

This project is located in Utah County. The area of potential effect is located along the canal and is approximately 100 feet wide and 22 miles long. A total of 280 acres were inventoried for cultural resources. Much of this canal, also known as the Murdock Canal was built in 1909. Sections of this canal had been recorded during 16 previous project inventories. This is the first time it has been recorded for it's entire length. It is an eligible historic property (42UT947) under criteria a and c. Twenty-two headgate/culvert features have been recommended as contributing elements to the overall canal eligibility. See Table 3 and Figures 2-5 for headgate descriptions and locations. Photos are included in the Appendices of the report.

The cultural resource work on this project was completed according to the Secretary of the Interior's Standards and Guidelines (48 FR 44716) by EarthTouch, LLC of Layton, Utah. The inventory located and mapped a total of 113 features in association with the canal. These included 16 farm bridges, 90 headgates/culverts, and seven feeder ditches. Three bridges which are listed in the UDOT historic bridge inventory were also documented on Historic Site forms (49034A, 49037D, and 49038A).

Under 36 CFR, 800.11(e), we are resubmitting this report including a description of the project, and the area of potential effects, this report includes maps, photographs and drawings to help illustrate the location and known features found during the inventory. The inventory resulted in the documentation of three bridges and revisited the canal along previously unrecorded sections. The report provides a synthesis of the entire length of the canal including a Class I literature search review, an historic overview, and a comprehensive feature list (Table 3) and correlates to several maps (Figures 2-6). A paleontological overview report from the Utah Geologic Survey has been conducted for the project area and there are no known paleontologic sites.

The historic property reinventoried during this project is the canal. It is previously recorded as site 42UT947 and is an eligible property. An addendum site update is included in this report for your records. This project will constitute an adverse effect to this historic property since it will physically destroy the site (36 CFR 800.5(2)(i)). Three historic bridges have been recorded on Historic Site forms (49034A, 49037D, and 49038A) and are recommended as being eligible for the National Register of Historic Places under criteria c.

Reclamation is resubmitting this report as mitigation for the adverse effects from this project and will complete an MOA to be signed by the Provo River Water Users, Reclamation, and your office. Due to the increasingly high density of people living in and using the canal area, Reclamation feels that justification for this project is apparent for reasons of public safety and improved water quality. Notification to the Northwest Band of the Shoshone Nation in Brigham City, Utah, and the Advisory Council on Historic Preservation in Denver, Colorado, regarding the project is being conducted.

Thank you for your consideration of this project, if you have any concerns, comments, or questions, please do not hesitate to call Barbara Blackshear at 801-379-1082.

Sincerely,

KERRY SCHWARTZ

Kerry Schwartz Chief, Environmental Group

### Enclosure

cc: Mr. Jonathan Clegg
Provo River Water Users Association
1788 North State Street
Orem, UT 84057
(w/o encl)

Mr. Terry Hickman Environmental Consultant 1249 North Santa Clara Parkway Santa Clara, UT 84765 (w/o encl)

bc:

PRO-420 and PRO-423 (each w/o encl)



BUREAU OF RECLAMATION "

OFF	FICIAL FILE CO	PY
&PATEDO	SURNAME	CODE
427	Soul Blacke	1423
8/8/02		· 42€
8/8/62	Phon	4400
	1	'
Classification	ENV-3.00	
Project	CLL	
Control No		

PRO-423 ENV-6.00

AUG 0 9 2002

Mr. Bruce Parry Executive Director Northwest Band Shoshone Tribe 862 South Main Street, No. 6 Brigham City, UT 84302

Subject: Provo Reservoir Canal Consultation Letter - Northwest Band Shoshone

Dear Mr. Parry:

In compliance with 36 CFR, Part 800.2(c)(3), Section 106 of the National Historic Preservation Act of 1966; the American Indian Religious Freedom Act of 1978; the Archaeological Resources Protection Act of 1979; the Native American Graves Protection and Repatriation Act of 1990; and all other laws, regulations, and directives that are pertinent to this Federal undertaking, the Provo Area Office of the Bureau of Reclamation is consulting with you about a proposed project that would bury a pipeline in a historic canal.

This proposed project is located in Utah County. The area of potential effect is approximately 100 feet wide and 22 miles long. Much of this canal, also known as the Murdock Canal (1909), had been previously recorded during 16 previous project inventories. It is an eligible historic property (42UT947) under criteria c. None of this project is located on Indian land. (Please see the enclosed map of the project area.)

Due to the increasingly high density of people living in and using the canal area, Reclamation feels that justification for this project is apparent for reasons of public safety and improved water quality. Because virtually all of the land along the canal has been graded and disturbed through time, those portions of the canal which had not been previously inventoried were inspected during a reconnaissance level survey, and features recorded along the way.

The project involves placing a pipe within the present canal and burying it with the dirt along the canal corridor. The pipe will be delivered, as needed, directly to the project area, thus alleviating the need for central staging areas or new access roads. All construction needs will be conducted within the 100-foot corridor of the canal inventory.

Encloto PRO423 The cultural resource work on this project was completed according to the Secretary of the Interior's Standards and Guidelines (48 FR 44716) by EarthTouch, LLC of Layton, Utah. The inventory located and mapped a total of 113 features in association with the canal. These included 16 farm bridges, 90 headgates/culverts, and 7 feeder ditches. Three bridges, which are listed on the UDOT historic bridge inventory, were also documented on Historic Site Forms. Three of the bridges are recommended as being eligible for inclusion to the National Register of Historic Places. Twenty-four of the features are recommended as being contributing elements to the historic canal. The final report (U-01-EP-0773s,p) for the cultural resource work on this project has been submitted to the Utah State Historic Preservation Office (SHPO). The report includes a synthesis of the 16 preceding reports on various sections of the canal and represents the water conveyance system as a whole. This project will eliminate the Murdock Canal from the landscape, so the report includes a history of the canal, numerous photographs, and maps. The report serves as mitigation for the adverse effects to the canal (36 CFR 800.5(2)(i) from this project.

We understand that the Murdock Canal is in the Northern Band Shoshone (Shoshone) aboriginal tribal boundaries; thus, we are consulting with you to inquire if you have any concerns about Traditional Cultural Properties or sacred sites in the area.

An inadvertent discovery clause is included in the permit to be issued by Reclamation for construction of the pipeline. In the advent of a discovery, this clause includes instructions to stop work immediately and contact the Reclamation archaeologist in Provo. The SHPO and the Shoshone will be consulted as quickly as possible before work in the discovery area proceeds. In addition, a "Quick Reference" card will be provided by Reclamation to construction workers prior to excavation, explaining the process.

If you have any questions, please do not hesitate to call Barbara Blackshear at 801-379-1082. Thank you for your consideration of this matter.

BRENT RHEES

ACTING FOR Kerry Schwartz Chief, Environmental Group

### Enclosure

cc: Ms. Patty Timbimboo-Madsen Cultural/Natural Resources Northwest Band Shoshone Tribe 862 South Main Street, No. 6 Brigham City, UT 84302 (w/encl)



Michael O. Leavitt Governor

Department of Community and Economic Development Division of State History Utah State Historical Society

300 Rio Grande Salt Lake City. Utah 84101-1182 Max J. Evans (801) 533-3500 FAX: 533-3503 TDD: 533-3502 ushs@history.state.ut.us http://history.utah.org

August 16, 2002

Barbara Blackshear Bureau of Reclamation Provo Area Office 302 East 1860 South Provo UT 84606-7317

RE: Provo Reservoir Canal, Utah County, Utah U-02-EP-077sp

In Reply Please Refer to Case No. 02-0810

Dear Ms. Blackshear:

Thank you for the resubmission of the report on the Provo Reservoir Canal. We concur the canal, the three associated bridges, and other associated in-period features are eligible for listing on the National Register of Historic Places. Further, we concur with your determination of Adverse Effect for this project. Our staff is available to assist in preparation of an MOA, or other mitigation measures. We understand you are contacting the Advisory Council on Historic Preservation, 12136 West Bayaud Avenue - Suite 330, Lakewood, Colorado 80226, as directed in 36 CFR 800.

This information is provided to assist with Section 106 responsibilities as specified in §36CFR800. If you have questions, please contact me at (801) 533-3563. My email address is: bmurphy@utah.gov

Sincerely,

Barbara L. Murphy Preservation Planner

State Historic Preservation Office

BLM:02-0810 BOR/DOE/AE/MOA

PRO OFFICIAL FILE COPY Reply Date Date 1 PETERM Coos 105 Classification F Project: Control No Folder I.D.

# Advisory Council On Historic Preservation





The Old Post Office Building 1100 Pennsylvania Avenue, NW, #809 Washington, DC 20004

Reply to:

12136 West Bayaud Avenue, #330

CODD

TREET

Logsification

Lakewood, Colorado 80226

June 19, 2002

Kerry Schwarz Chief, Environmental Group Bureau of Reclamation 302 East 1860 South Provo, UT 84606-7317

RE: P

Pipe Improvements, Provo River Canal Project.

Dear Mr. Schwartz:

On June 6, 2002, we received your notification and supporting documentation regarding the adverse effects of the referenced project, a property eligible for inclusion in the National Register of Historic Places. Based upon the information you provided, we do not believe that our participation in consultation to resolve adverse effects is needed. However, should circumstances change, please notify us so we can re-evaluate if our participation is required. Pursuant to 36 CFR 800.6(b)(iv), you will need to file the Memorandum of Agreement, and related documentation at the conclusion of the consultation process. The filing of this Agreement with the Council is necessary to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions, please contact Carol Gleichman at 303/969-5110 or via eMail at cgleichman@achp.gov

Sincerely.

Nancy Kochan

Office Administrator/Technician

Western Office of Federal

Many Kochan

Agency Programs



Michael O. Leavitt Governor Kathleen Clarke Executive Director Richard G. Allis, Ph.D. State Geologist

# State of Utah DEPARTMENT OF NATURAL RESOURCES UTAH GEOLOGICAL SURVEY

1594 West North Temple, Suite 3110 PO Box 146100 Sait Lake City, Utah 84114-6100 801-537-3300 801-537-3400 (Fax) http://www.ugs.state.ucus

February 26, 2002

Lorna Billat Earth Touch LLC 2269 East Canyon View Drive Layton UT 84040

RE:

File Search for Project No. THC-01: Enclosure of Provo Reservoir Canal in Utah Valley,

Utah County, Utah

U.C.A. 63-73-19 (Paleontological) Compliance; Request for Confirmation of Literature Search according to the UDOT/UGS Memorandum of Understanding.

### Dear Lorna:

I have conducted a paleontological file search for the Provo Reservoir Canal project in response to your letter of February 25, 2002. This project qualifies for treatment under the UDOT/UGS executed Memorandum of Understanding.

There are no paleontological localities recorded in the project area. Quaternary alluvial deposits (Qay, Qas) that are exposed in parts of this project area have a low potential for yielding significant fossil localities. However, there are also exposures of Lake Bonneville deposits (Qltg) in this project area, which has potential for yielding significant vertebrate fossil localites. So please be aware of possible impacts to paleontological resources if these deposits are disturbed as a result of construction activities. Otherwise, this project should have no impact on paleontological resources.

If you have any questions, please call me at (801) 537-3311.

Sincerely,

Martha Hayden

Paleontological Assistant

The Discovery Clause stated herein is taken from the Bureau of Reclamation Manual as defined in the Directives and Standards.

The Native American Graves Protection and Repatriation Act (NAGPRA) does not specify a minimum age for human remains under its jurisdiction and applies only to human remains of Native Americans as defined in 25 U.S.C. § 3001(9). Non-Native American human remains over 100 years old, and from a site of "archaeological interest" (43 CFR §7.3(1), generally are covered by the Archaeological Resources Protection Act (ARPA). However, in accordance with 43 CFR § 7.3(5), Reclamation will not consider human remains to possess archaeological interest if they are linked to lineal descendants or if a person or group makes a well-documented claim based on clear ethnic or religious affinity.

Notwithstanding the above, any human remains from a modern or questionable context should be treated as a potential criminal case until the proper law enforcement authority relinquishes jurisdiction.

### **Discovery Clause:**

It is the responsibility of the Regional Director, or the Regional Director's designee, Provo Area Office archaeologist, Barbara Blackshear, to include the following clause in all use authorization instruments:

The (grantee, licensee, permittee, lessee, etc.) Shall immediately provide an oral notification to BOR's authorized official of the discovery of human remains on this undertaking. The (grantee, licensee, permittee, lessee, etc.) shall forward a <u>written</u> report of their findings to BOR's authorized official within 48 hours. The (grantee, licensee, permittee, lessee, etc.) shall leave such discoveries intact until authorized to proceed by BOR;s authorized official. Protective and mitigative measures specified by BOR's authorized official shall be the responsibility of the (grantee, licensee, permittee, lessee, etc.).

### Notification:

### Discoverers' Responsibility

Any person who knows, or has reason to believe, that he/she may have discovered human remains must contact the Regional Director, or the Regional Directors designee, immediately. If the human remains are native American, then the discoverer shall immediately notify the Regional Director, or the Regional Directors designee, by telephone or in person and shall give a written confirmation of the discovery to the Regional Director, or the Regional Directors designee, within one working day. Written confirmation is also required by either a cultural resource professional (e.g. an archaeologist or a physical anthropologist) or an authorized law enforcement official who makes the determination of Native American. This level of confirmation is necessary since persons untrained in North American archaeology and human osteology are unable to definitively identify Native American human remains.

# MEMORANDUM OF AGREEMENT (MOA) AMONG THE

UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION, THE PROVO RIVER WATER USERS ASSOCIATION, AND THE

# THE UTAH STATE HISTORIC PRESERVATION OFFICER REGARDING THE TRANSFER OF TITLE OF THE PROVO RESERVOIR CANAL

WHEREAS, the United States of America, under the administration of the Bureau of Reclamation (Reclamation) owns the Provo Reservoir Canal (PRC), including the intake structure known as the Murdock Diversion, and

WHEREAS, transfer of title to the PRC from Federal ownership to the Provo River Water Users Association (PRWUA), is planned, subject to Congressional authorization, and

WHEREAS, the PRC is located in Utah County, Utah, and is approximately 22 miles long, beginning at the Murdock Diversion, on the Provo River, and ending near the Point of the Mountain. The PRC was constructed in 1909, has been documented in compliance with 36 CFR 800.4, and has been determined to be eligible for the National Register of Historic Places under 36 CFR 64, criteria a and c, and

WHEREAS, as part of a separate undertaking known as the Provo Reservoir Canal Enclosure Project, which would be superseded by this title transfer undertaking, Reclamation has recommended and the Utah State Historic Preservation Office (SHPO) has concurred that the PRC is eligible for inclusion in the National Register of Historic Places; and

WHEREAS Reclamation has consulted with the Utah SHPO, the Northern Ute Tribe, the Northwest Band Shoshone, and the Advisory Council on Historic Preservation (Council) in accordance with Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470 (NHPA), and its implementing regulations (36 CFR Part 800.5(a)(2)(i)) to resolve the adverse effect of the title transfer on historic properties; and

NOW, THEREFORE, Reclamation, and the Utah SHPO agree that upon Congressional authorization to proceed with the title transfer of the PRC to the PRWUA, Reclamation shall ensure that the following stipulations are implemented in order to take into account the effects of the title transfer on historic properties.

compliance with 36 CFR 800.6(b), adverse effects have been mitigated by the submission of the report, and as stipulated in 36CFR 800.6 (b)(1), by the submission of this MOA.

In compliance with 36 CFR 800.6(b)(1)(iv) Reclamation shall submit a copy of the executed MOA, along with all related documentation to the Council.

### V. UTAH STATE HISTORIC PRESERVATION OFFICE RESPONSIBILITIES

The Utah SHPO reviewed and commented on the report previously submitted as mitigation for the PRC Enclosure Project and agreed that that report will serve as mitigation for this title transfer. The signing of this MOA will complete mitigation for this undertaking, and thus any further obligation for the Utah SHPO.

### VI. PROVO RIVER WATER USERS ASSOCIATION RESPONSIBILITIES

PRWUA funded the cultural resource inventory report of the PRC submitted to the Utah SHPO. With the signing of this MOA, PRWUA has fulfilled their cultural resource obligations concerning the title transfer of the PRC.

Should this proposed undertaking (title transfer) not occur, PRWUA's cultural resource obligations for the previously approved Provo Reservoir Canal Enclosure Project are considered to be fulfilled by the signing of this MOA. If title transfer occurs, Reclamation's previous authorization to enclose the PRC would become moot since the Federal Government would no longer own the PRC.

# VII. THE ADVISORY COUNCIL ON HISTORIC PRESERVATION RESPONSIBILITIES

The Council may provide assistance, guidance, and advice on the application of Section 106 to complete this process, even though Council has chosen not to formally be involved in the review process.

### VIII. NATIVE AMERICAN CONSULTATION

In accordance with 36 CFR 800.3(f)(2) consultation in the form of letters and maps inquiring about religious or cultural significance of the APE for the title transfer was conducted with both the Northern Ute Tribe of the Ouray and Uintah Indian Reservation in Fort Duchesne, Utah; and the Northwest Band Shoshone Tribe of Brigham City, Utah in 2003. No comments were received from either tribe.

### IX. REPORTING

Reclamation shall ensure that all final reports/documentation resulting from actions pursuant to this MOA will be provided to the Utah SHPO and the Council.

### X. DISPUTE RESOLUTION

Should the Utah SHPO, PRWUA, or Reclamation object within 10 days after the signing of this MOA to any specifications provided herein, Reclamation shall consult with the objecting party to resolve the objection. If Reclamation determines that objection cannot be resolved, Reclamation shall forward all documentation relevant to the dispute to the Council. Within 15 days after receipt of all pertinent documentation, the Council will either:

- Provide Reclamation with recommendations on how to resolve the dispute, which Reclamation will take into account in reaching a final decision regarding the dispute; or
- 2. Notify Reclamation that it will comment pursuant to 36 CFR 800.6(b), and proceed to comment. Any Council comment provided in response to such a request will be taken into account by Reclamation in accordance with 36 CFR 800.6(c)(2) with reference to the subject of the dispute.

### XI. TIME FRAMES

All documentation, photographs, maps, and other materials collected or developed for any identification, evaluation, or treatment activities have been sent by Reclamation to the Utah SHPO in Salt Lake City, and a second copy is filed at the Provo Area Office in Provo, Utah.

If any parties to the MOA fail to respond to Reclamation within 30 days of the receipt of a submission, Reclamation shall presume concurrence with Reclamation's findings and recommendations as detailed in the submission, and proceed accordingly.

### XII. DURATION

Pursuant to 36 CFR 800.6(c)(5) this MOA shall be effective for five (5) years from the date of signing. At that time, the terms may be reconsidered by all of the signatories.

### XIII. AMENDMENTS AND ADDENDA

Any party to this Agreement may request that an addendum be added or that it be amended, whereupon the parties will consult in accordance with 36 CFR 800.13 to consider such amendment or addendum.

### XIV. TERMINATION

Any party to this MOA may terminate it by providing 30 days' notice to the other parties of the reasons for termination, provided that the parties consult during the period prior to

that termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, Reclamation will comply with 36 CFR 800.4 – 800.6 with regard to individual undertakings covered by this MOA.

Execution and Implementation of this MOA evidences that Reclamation has afforded the Council a reasonable opportunity to comment on the transfer of title to the Provo Reservoir Canal in Utah County, Utah, and that Reclamation has taken into account the effects of this project on historic properties.

### SIGNATORIES:

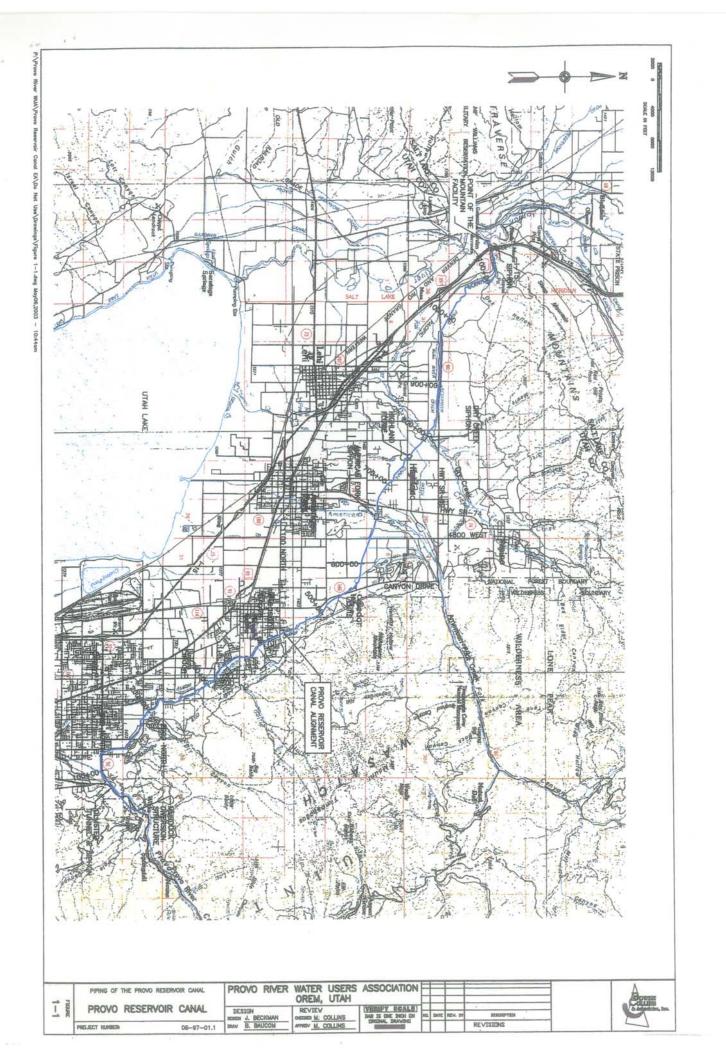
U.S.	BUREAU OF RECLAMATION, PROVO AREA OFFICE
By:_	Sauce Date: 10/4/04
	Bruce C. Barrett, Area Office Manager

PROVO RIVER WATER USERS ASSOCIATION

By: John Denos, General Manager Date: 10.4.4

UTAH STATE HISTORIC PRESERVATION OFFICER

Wilson Martin, Utah Preservation Program Manager She Hoton Preservation





JON M. HUNTSMAN, JR. Governor

GARY R. HERBERT Lieutenant Governor

### DEPARTMENT OF TRANSPORTATION

JOHN R. NJORD, P.E. Executive Director CARLOS M. BRACERAS, P.E. Deputy Director

August 14, 2008

**TO:** Valerie Porter

Project Manager/NEPA Specialist

**URS** Corporation

**FROM:** Jennifer Elsken

Region NEPA/NHPA Specialist

**SUBJECT:** Cultural Clearance

UDOT Project F-LC49(106): Provo Reservoir Canal Trail Project, Utah County, Utah.

This memorandum is to advise you that the subject federal-aid project is granted cultural clearance. One eligible archaeological site, the Provo Reservoir Canal (42UT947), is located within the area of potential effects. Enclosure of this canal is a separate project and has been previously evaluated, resulting in an adverse effect and execution of a Memorandum of Agreement with the Utah State Historic Preservation Officer to mitigate effects. Construction of the trail does not constitute an additional adverse effect to the site and will not impact or alter the canal as a whole or any of its character-defining features for which the overall site was determined eligible for the National Register of Historic Places.

Therefore, the UDOT and the FHWA have determined that the finding of effect for this project is No Historic Properties Affected. As such, this project falls under the *Programmatic Agreement among the FHWA*, the UDOT, the Utah State Historic Preservation Office, and the Advisory Council on Historic Preservation Regarding Section 106 Implementation for Federal-Aid Transportation Projects, signed into effect April 16, 2007. This determination is documented in the attached Tier 1 screening form.

Please note that cultural clearance is contingent upon the contractor adhering to the proposed scope of work and remaining within cleared areas only. Also, in case of an inadvertent discovery the UDOT Standard Specification Section 01355 Part 1.13 applies. This specification stipulates procedures to be followed should any buried historic, archaeological, or paleontological resources be uncovered during construction of the project. Please notify me immediately if any such discoveries are made.

I appreciate your assistance in ensuring compliance for this project. Should you need any additional information or assistance, please contact me at 801-227-8062 or jelsken@utah.gov.

### **TIER 1 SCREENING FORM**

Project No: F-LC49(106)

PIN No: 6527

Project Name: Provo Reservoir Canal Trail Project

Project Description: Project proposes to construct a two-surface, multi-use trail at the location of the Provo Reservoir Canal from 800 North in Orem to the State Route (SR) 92 crossing in Lehi, a distance of 14.25 miles. The typical width of the canal right of way is approximately 100 feet and the trail will be constructed with this corridor.

As a separate project, the Provo River Water Users Association (PRWUA) will enclose the entire length of the Provo Reservoir Canal from the Murdock Diversion in Provo Canyon to the Point of the Mountain near the Utah County/Salt Lake County boundary, a distance of approximately 21.5 miles. Once the canal has been enclosed, the PRWUA expects to allow construction of a trail on top of the enclosed canal. The action of enclosing the canal was reviewed by the Bureau of Reclamation in an Environmental Assessment, which resulted in a Finding of No Significant Impact (FONSI) dated April 30, 2003.

The Provo Reservoir Canal Trail Project is being reviewed by the Bureau of Reclamation in an Environmental Assessment, which references the data from the earlier study.

City: Orem, Lindon, Pleasant Grove, Lehi, American Fork, Cedar Hills, and Highland County: Utah

Screened undertakings are those undertakings that have the potential to affect historic properties, but following appropriate screening, may be determined to require no further review or consultation under this Agreement.

### **The Screening Process**

The determination that an undertaking is exempt from further review or consultation will be made by the PQS, although some of the activities included in the screening may be done by qualified consultants, as specified in Stipulation IV.B of the Programmatic Agreement. The screening process may include one or more of the following procedures. The process is not limited to the procedures below, nor are all these procedures required for all undertakings. Screening should be appropriate to the specific complexity, scale, and location of the undertaking.

Check all that apply.

Antiquities Project No: U-01-EP-0773sp

### Literature Review

X Class I literature search: Conducted by EarthTouch Consultants as part of the 2003 Bureau of Reclamation Environmental Assessment. Complete results reported in *A Cultural Resource Inventory of the Provo Reservoir Canal, Utah County, Utah*, July 2002.

Records review

X Project plans

As built project plans

X Aerial photographs: Google Earth

Historic Maps

Topographic Maps

ROW/Ownership/Parcel Data

Other

#### Field Review

Field review

Pedestrian survey (Class III)

X If no field survey conducted, describe why not: Pedestrian inventory conducted by EarthTouch Consultants as part of the 2003 Bureau of Reclamation Environmental Assessment. Complete results reported in *A Cultural Resource Inventory of the Provo Reservoir Canal, Utah County, Utah*, July 2002. Since this survey adequately covered the project area, no additional survey was needed. One eligible archaeological site, the Provo Reservoir Canal/Murdock Canal (42UT947) is located within the current project APE.

Other (describe):

### Consultation

**SHPO** 

CLG

Tribes

**Knowledgeable Informants** 

Other: Conducted with relevant agencies, tribes, and other interested parties as part of the 2003 Bureau of Reclamation Environmental Assessment.

Controversy based on historic preservation issues? NO If yes, consultation with SHPO is required.

The following Supporting Documentation\* is attached. (List below)

- 1. Environmental Assessment includes project plans and maps
- 2. Cultural resources report on file with SHPO: *A Cultural Resource Inventory of the Provo Reservoir Canal, Utah County, Utah*, prepared by EarthTouch Consultants July 2002. Antiquities section project number U-01-EP-0773sp.

\*If a cultural resource inventory is conducted under this stipulation, any cultural resource reports generated from the survey shall be submitted to the Utah Division of State History (UDSH) for filing.

Based on the screening process it is my professional determination that the subject undertaking will result in the following effect finding:

No Historic Properties Affected: no sites present

No Historic Properties Affected: sites present but no sites eligible

X No Historic Properties Affected: eligible sites present, but sites are completely avoided by the undertaking and the potential for substantial indirect effects is very low.

Based on the outcome of the screening process, this undertaking requires no further review and consultation. Documentation of the screening will be included in the following:

- X Project Files
- X Quarterly Report
- X Environmental Assessment

Name: Jennifer Elsken

Title: NEPA/NHPA Specialist

Date: August 14, 2008.

# **APPENDIX B**

Draft Provo River Canal Rights-of-Way Greenway Interlocal Agreement

# PROVO RIVER CANAL RIGHTS-OF-WAYS GREENWAY INTERLOCAL AGREEMENT

This Interlocal Agreement is executed in duplicate this \_\_\_\_ day of \_\_\_\_\_\_, 2008, by and between Utah County, a political subdivision of the State of Utah (hereinafter referred to as the "County"); the City of Orem, a municipal corporation and political subdivision of the State of Utah, Lindon City, a municipal corporation and political subdivision of the State of Utah, Pleasant Grove City, a municipal corporation and political subdivision of the State of Utah, Cedar Hills Town, a municipal corporation and political subdivision of the State of Utah, American Fork City, a municipal corporation and political subdivision of the State of Utah, Highland City, a municipal corporation and political subdivision of the State of Utah, and Lehi City, a municipal corporation and political subdivision of the State of Utah (the combined group of North Utah County cities to be hereinafter collectively referred to as the "Cities" or "City" when used in the singular).

# <u>RECITALS</u>

WHEREAS the United States Department of the Interior, Bureau of Reclamation (hereinafter referred to as the "BOR") and the Provo River Water Users Association (hereinafter referred to as the "PRWUA") hold easements and fee interests in and to rights-of-ways upon which are currently located the Provo Reservoir Canal and a maintenance road immediately adjacent to the canal; and

WHEREAS the BOR and the PRWUA have prohibited public access to the Provo Reservoir Canal and the maintenance road because of concerns relating to safety, liability, water quality, and operations concerns; and

WHEREAS the County and the Cities desire to utilize the rights-of-ways, or portions thereof, to construct a public trail within a Greenway for recreational purposes; and

WHEREAS the County, acting as the lead government agency, intends to enter into a Greenway Use Agreement with the BOR and the PRWUA to develop a non-motorized, multi-use trail within a Greenway from Orem through Lehi within the said rights-of-ways for the existing Provo Reservoir Canal (the "PRC") which right-of-way is more particularly described in Exhibit "A" which is attached hereto and by reference is made a part hereof (hereinafter referred to as the "Greenway"); and

WHEREAS the Cities desire to enter into an interlocal agreement with the County to participate with the County in funding, constructing, managing, policing, maintaining and using the Greenway; and

WHEREAS the Cities desire to provide an opportunity to their respective citizens to use the Greenway in a safe and controlled manner; and

WHEREAS the County and the Cities desire to set forth the terms of their agreement and the parties' respective rights and obligations in this Agreement; and

WHEREAS, the County and each of the Cities have approved this Agreement by resolutions adopted by their respective governing bodies.

### **COVENANTS**

NOW THEREFORE, in consideration of the covenants and promises contained herein, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the County and the Cities agree as follows:

- 1. Agreement Between County and the BOR and PRWUA. The County will be the lead agency and shall use its best efforts to negotiate and enter into an agreement with the BOR and the PRWUA allowing the County and the Cities to open the Greenway for recreational use by members of the public. The Cities shall have and opportunity to review and comment on the agreement before it is finalized. This Agreement is subject to and contingent upon the County entering into the an agreement with the BOR and PRWUA for use of the Greenway. In the event that the County does not enter into such an agreement, this Agreement shall be null and void. The County and the Cities anticipate that the Agreement between the County, the BOR and the PRWUA shall address the following areas:
  - 1.1. Terms and conditions governing use of the Greenway.
  - 1.2. Responsibility for design, construction and maintenance expenses for the Greenway.
  - 1.3. Criteria for acceptable design of the Greenway.
- 2. <u>Greenway Design</u>. The County with input from the Cities shall prepare a Greenway design which meets the criteria set forth below:
  - 2.1. Water quality protection and non-interference with the efficient and safe care, operation, maintenance, use of the enclosed canal for the PRC are of primary importance in the design. Public use of the elements of the Greenway is secondary.
  - 2.2. The design of any necessary trail, road and other improvements must safely and efficiently accommodate the maintenance vehicles of the BOR, other BOR designated parties, PRWUA, the County and the Cities.
  - 2.3. The design must include water quality recommendations, such as the handling of surface drainage and litter collection features to keep runoff and litter from affecting the rights-of ways and the enclosed canal.
  - 2.4. The design shall include safety recommendations such as trail use restrictions, recommendations for ordinances to enforce trail use restrictions,

- recommendations for law enforcement patrols; the design and placement of signs, trail head lighting, guarding improvements for utilities that cross the canal (such as pipelines), and warning signs or lights for intersections between the trail and public streets and highways, etc.
- 2.5. Existing gravity drainage of the United States rights of way must be maintained when the Greenway is improved.

### 3. Construction and Maintenance.

- 3.1 The County shall be responsible for obtaining any rights of way which may be necessary for the construction and operation of the Greenway. The County shall be responsible for the maintenance of the Greenway and for the construction of any improvements to the Greenway which may be needed. The County shall inspect the Greenway on a regular and routine basis and shall perform such maintenance and repairs to the trail as may be needed to keep the trail in a safe, sanitary and sightly condition. The County and the Cities shall jointly establish an annual maintenance budget for performing routine maintenance work that is needed on the entire trail for items such as weed control, sweeping, signing, snow removal, etc. The cities will be asked to participate in that budget at the same percentage rate as identified for capital improvements to the trail. The percentage rate allocation will be updated at five year intervals.
- 3.2. Each City shall be responsible for assisting the County in keeping that part of the Greenway which is located in that City, in a well maintained, safe, sanitary and sightly condition. The Cities will be entitled to credit for work they will perform or have performed.
- 3.3. In the event that the need for maintenance or repairs to the trail is brought to the attention of any of the Cities or the County, the County and the City in which that part of the trail is located shall be notified of the need for such maintenance and/or repairs. After receiving such notice, the County shall promptly coordinate the needed maintenance or repairs to the trail with the City in which that part of the trail is located, after safety, funds and priorities are evaluated. The County shall be responsible for 35% of the costs of the needed maintenance or repairs. In the event that the assigned City does not promptly perform needed safety improvements, maintenance or repairs to the trail, the County shall have the responsibility to perform such safety improvements, maintenance and repairs and to receive reimbursement from the City for 65% of the costs incurred by the County in performing such safety improvements, maintenance or repairs.
- 3.4. The County and the Cities shall work together to maintain and operate the Greenway in accordance with the following guidelines:
  - 3.4.1. Trail surfacing, signs and other Greenway features shall be maintained for continued safe use of the public while maintaining the right of PRWUA to deliver clean water.
  - 3.4.2. Garbage, branches and other debris shall be regularly removed from the PRC right-of-way.
  - 3.4.3. Greenway use shall not interfere with the delivery of water in the enclosed

canal.

- 3.4.4. Maintenance work on the canal enclosure by the PRWUA shall take priority over the use of the Greenway by the public. Signs shall be installed to inform the public of this priority and of the fact that motorized equipment will be used within the PRC right-of-way by the PRWUA.
- 3.4.5. The PRWUA may require that the Greenway be closed to the public in the event that an emergency along the canal enclosure requires maintenance work by the PRWUA. The County and the Cities shall assist in the shut down through posting of signs and notices when time allows.
- 3.4.6. Maintenance work that potentially would conflict in any way with the canal operations shall be coordinated with the PRWUA so that it does not interfere with the care, operation, maintenance or use of the PRC.
- 3.4.7. The County and the Cities shall work together to adopt and post rules and regulations regarding the use of the trail and surrounding Greenway areas.

### 4. Funding and Apportionment of Construction and Maintenance Expenses.

- 4.1. The parties anticipate that all funding necessary for the construction, maintenance and operation of the Greenway shall come from federal funds, County funds, City funds, grants and/or private and public sources. The County shall use its best efforts to obtain grants which may be available for the construction and/or maintenance of the Greenway. The County shall also use its best efforts to obtain other sources of funding such as donations and private contributions for the development of the Greenway and related facilities. The Cities shall cooperate and work with the County to obtain any such available grants or other sources of funding. The expenses incurred by the County in improving and maintaining the Greenway shall be met first by any such federal funds, grants and/or donations which may be available for such purposes.
- 4.2. The County and each of the respective Cities shall be responsible for a percentage of the expenses related to the construction, maintenance or operation of the Trail (hereinafter referred to as the "Greenway Expenses") which are not covered by federal funds, grants or other sources of funding. The County will contribute 35% of the Greenway Expenses. The Cities shall contribute the remaining 65% of the Greenway Expenses utilizing a formula which gives equal weight to each cities population and trail miles.
- 4.3. The County and Cities shall develop a long range plan for development of the Greenway which includes budget information. The County and Cities shall meet at least annually to coordinate the <a href="work">work</a> plan and prepare annual budgets. The County shall annually calculate the total cost of Greenway Expenses (improvements and maintenance performed in each calendar year) and shall send an invoice to each of the Cities at the end of each calendar year for the amount for which the County requests reimbursement. The County shall include a description of the work performed and/or materials acquired for which the County claims reimbursement. All costs will be allocated using the percentages determined by Section 4.2 for the County and each of the cities. The annual invoice sent to the

<u>Cities shall request reimbursement for 65% of the costs incurred</u>. Reimbursement shall be paid to the County by the Cities within thirty (30) days of receipt of an invoice from the County. The Cities will be entitled to credit for work they will perform or have performed.

- 5. **Public Education**. Each of the Cities agrees to conduct a public education program to educate the users of the Greenway on the rules governing use of the trail and the importance of respecting the rights of the PRWUA to maintain and use the enclosed Provo Reservoir Canal for transporting clean water to the PRWUA's end users.
- 6. Adoption of Greenway Rules. The County has established a list of rules which shall govern use of the Greenway and trail. A copy of these rules is attached hereto as Exhibit "B" and by reference is made a part hereof (hereinafter referred to as the "Greenway and Trail Use Rules"). The County and the Cities recognize and agree that enforcement of the Greenway Rules is essential to protecting the integrity of the enclosed Provo Reservoir Canal and to the safe use of the Greenway and trail. Therefore, the County and each of the Cities shall enact an ordinance which substantially adopts the Greenway Rules and imposes a criminal sanction for the violation of the Greenway Rules. Each of the Cities agrees to at all times enforce and keep the ordinance in effect and to amend the ordinance to incorporate any changes which may need to be made to the Greenway Rules. The parties acknowledge that neither the County nor the Cities can bind themselves by agreement to enact or maintain a particular ordinance. However, the County and the Cities hereby state their intent to enact and maintain such an ordinance.
- 7. Law Enforcement and Enforcement of Greenway Rules. The County and each of the Cities agree to assign public safety officers to regularly patrol that portion of the Greenway which lies within their respective jurisdictions. The County and the Cities may recruit volunteers to assist in enforcing the Greenway Rules and to keep the Greenway free from garbage, rubbish, trash or other refuse. All large group volunteer work and activities must be coordinated and approved by the County.
- 8. <u>Indemnification</u>. The Cities acknowledge that the County has or will agree to indemnify the BOR and the PRWUA from all claims arising out of the use of the Greenway by the public. The parties anticipate that the protections of the Utah Limitation of Landowner Liability--Public Recreation Act (Utah Code Section 57-14-1 *et. seq.*) and SB 98 (Governmental Immunity For Trails) passed by the 2007 legislature, will apply to any claims which may be made against the BOR, the PRWUA, the County and/or the Cities with regard to any user of the Greenway for recreational purposes. However, notwithstanding these protections, and without in any way waiving the defenses afforded by the Limitation of Landowner Liability Act, each City agrees to indemnify and hold harmless each and every other City and the County from all claims for personal injuries or damage to property when such injuries or damages directly or indirectly arise out of the construction, maintenance, repair, condition, use or presence of the Greenway within the indemnifying City; provided however, that nothing in this Agreement shall be

construed as releasing, indemnifying or holding harmless the BOR, the PRWUA, the County or any City from liability for their own negligence. The County agrees to indemnify and hold harmless each of the Cities from all claims for personal injuries or damage to property when such injuries or damages directly or indirectly arise out of the construction, maintenance, repair, or condition performed by the County or the use or presence of the Greenway within the unincorporated area of the County, provided however, that nothing in this Agreement shall be construed as releasing, indemnifying or holding harmless any City from liability for their own negligence. The indemnification obligations hereunder shall not be considered a waiver of the Governmental Immunity Act (Utah Code Section 63-30-1, et. seq.) The obligation of the Cities and the County to indemnify under this Section is limited to the amounts specified in the Governmental Immunity Act (Utah Code Section 63-30-34), as amended by statute or the state risk manager as provided by statute.

- 9. <u>Duration</u>. This Agreement shall remain in full force and effect for a period of fifty (50) years or until such time as the Agreement between the County and the BOR and the PRWUA is terminated, whichever is sooner.
- 10. <u>Interlocal Co-operation Act.</u> The following terms are included in the Agreement to comply with the requirements of the Interlocal Co-operation Act:
  - 10.1. **No Separate Entity.** This Agreement does not establish a separate legal or administrative entity.
  - 10.2. **No Separate Budget.** There shall not be a separate budget to carry out the terms of this Agreement, but each party shall fund and pay for its respective responsibilities pursuant to this Agreement.
  - 10.3. **Filing.** The County and the Cities shall each file a copy of the Agreement with the keeper of the records for their respective entities.
  - 10.4. **Joint Board.** The parties hereby establish a joint board to administer this cooperative undertaking. The board shall be comprised of representatives from the participating Cities and the County. Each party may change its representative at any time.
  - 10.5. **Attorneys.** The parties' respective attorneys have reviewed this Agreement as to form and have found it to be compatible with the laws of the State of Utah.
- 11. <u>Interpretation of Agreement.</u> Whenever the context of any provision shall require it, the singular number shall be held to include the plural number, and vice versa, and the use of any gender shall include the other gender. The paragraph and section headings in this Agreement are for convenience only and do not constitute a part of the provisions hereof.
- 12. <u>Amendments.</u> No oral modifications or amendments to this Agreement shall be effective, but this Agreement may be modified or amended by written agreement.
- 13. **No Presumption.** Should any provision of this Agreement require judicial

interpretation, the Court interpreting or construing the same shall not apply a presumption that the terms hereof shall be more strictly construed against one party, by reason of the rule of construction that a document is to be construed more strictly against the person who himself or through his agents prepared the same, it being acknowledged that all parties have participated in the preparation hereof.

- 14. **<u>Binding Agreement.</u>** This Agreement shall be binding upon the heirs, successors, administrators, and assigns of each of the parties hereto.
- 15. <u>Notices.</u> All notices, demands and other communications required or permitted to be given hereunder shall be in writing and shall be deemed to have been properly given if delivered by hand or by certified mail, return receipt requested, postage paid, to the parties at their addresses first above written, or at such other addresses as may be designated by notice given hereunder.
- 16. <u>Assignment.</u> The parties to this Agreement shall not assign this Agreement, or any part hereof, without the prior written consent of all other parties to this Agreement.
- 17. <u>Utah Law.</u> This contract shall be interpreted pursuant to the laws of the State of Utah.
- 18. <u>Time of Essence.</u> Time shall be of the essence of this Agreement.
- 19. <u>Lawful Agreement.</u> The parties represent that each of them has lawfully entered into this Agreement, having complied with all relevant statutes, ordinances, resolutions, by-laws, and other legal requirements applicable to their operation.
- 20. **Breach**. In the event that any party breaches this Agreement, a non-breaching party may serve the breaching party with a notice to cure the breach by certified mail, return receipt requested or personal delivery to the breaching party. The breaching party shall cure the breach within thirty days of receiving notice to cure, or if the breach is not capable of curing within thirty days, commence corrective action within thirty days and diligently pursue correction of the breach until the breach is cured. Failure to cure of diligently pursue corrective action constitutes a breach for which this Agreement may be terminated.
- 21. <u>Incorporation of Recitals</u>. The Recitals to this Agreement are hereby incorporated into the Covenants section of this Agreement as if fully set forth herein.

SIGNED and ENTERED INTO this da	y of, 2	2008.
	Utah County By:	
	2).	
	County Commission Chairm	an
ATTEST:		
Byran E. Thompson, County Clerk/Auditor		
D		
By:		
Reviewed as to form:		
Jeffrey R. Bushman, County Attorney		
By:		
Deputy		

SIGNED and ENTERED INTO this	_ day of	_, 2008.
	City of Orem By:	
ATTEST:	Jerry Washburn, Mayor	
Donna Weaver, City Recorder		
Reviewed as to form:		
Paul B. Johnson, City Attorney		

SIGNED and ENTERED INTO this	day of	, 2008.
	Lindon City By:	
	Dy.	
ATTEST:		, Mayor
, City Recorder		
Reviewed as to form:		•
, City Attorney		

SIGNED and ENTERED INTO this	day of	, 2008.
	Pleasant Grov By:	ve City
		, Mayor
ATTEST:		
, City Recorder  Reviewed as to form:		
, City Attorney		

day of	, 2008.
Cedar Hills Ci	tv
By:	ty
	, Mayor
	, 1125 61
	Cedar Hills Ci By:

SIGNED and ENTERED INTO this	day of	, 2008.
	American Forl By:	k City
ATTEST:		, Mayor
, City Recorder  Reviewed as to form:		
, City Attorney		

SIGNED and ENTERED INTO this	day of	, 2008.
	Highland Cit By:	у
		, Mayor
ATTEST:		
, City Recorder Reviewed to form:		
, City Attorney		

SIGNED and ENTERED INTO this	day of	, 2008.
	Lehi City By:	
		, Mayor
ATTEST:		
, City Recorder		
Reviewed as to form:		
, City Attorney		

### EXHIBIT "A"

### **DESCRIPTION**

Those portions of the existing PRC rights-of-ways within Orem City starting at 800 North Street and proceeding Northwesterly to the Lindon City Boundary at 2000 North Street (2.35 miles), located in Sections 12, 1, and 2 of Township 6 South, Range 2 East, Salt Lake Base and Meridian.

Also those portions of the existing PRC rights-of-ways within Lindon City starting at 200 South Street and proceeding Northwesterly to the Pleasant Grove City Boundary at 800 North Street (1.61 miles), located in Sections 35, 34, and 27 of Township 5 South, Range 2 East, Salt Lake Base and Meridian.

Also those portions of the existing PRC rights-of-ways within Pleasant Grove City starting at 1000 South Street and proceeding Northwesterly to the Cedar Hills Boundary at approximately 2600 North (3.69 miles); starting again at the Cedar Hills Boundary at State Road 146 and proceeding Northwesterly to the Cedar Hills Boundary at approximately 3300 North (0.25 miles); starting again at the Cedar Hills Boundary at approximately 3500 North and proceeding Northwesterly to the Cedar Hills Boundary at approximately 3550 North (0.06 miles); and starting again at the Cedar Hills Boundary at approximately 900 West and proceeding Westerly to the Cedar Hills Boundary at approximately 1200 West (0.20 miles) located in Sections 27, 28, 21, 16, 17, 8, and 7 of Township 5 South, Range 2 East, Salt Lake Base and Meridian.

Also those portions of the existing PRC rights-of-ways bordered on the South and West by Pleasant Grove City (PG) and on the North and East by Cedar Hills (CH) starting at their common boundary at approximately 2600 North (PG) or 8800 North (CH) and proceeding Northwesterly to their common boundary at State Road 146 (0.39 miles); starting again at their common boundary at approximately 3300 North (PG) or 9200 North (CH) and proceeding Northwesterly to their common boundary at approximately 3500 North (PG) or 9350 North (CH) (0.14 miles); starting again at their common boundary at approximately 3550 North (PG) or 9400 North (CH) and proceeding Northwesterly to their common boundary at approximately 900 West (PG) or 4000 West (CH) (0.28 miles); and starting again at their common boundary at approximately 1200 West (PG) or 4150 West (CH) and proceeding Westerly to a common boundary between Pleasant Grove and American Fork at approximately 1600 West (PG) or 4400 West (CH) (0.36 miles) located in Sections 8 and 7 of Township 5 South, Range 2 East, Salt Lake Base and Meridian.

Also those portions of the existing PRC rights-of-ways bordered on the North by Cedar Hills (CH) and on the South by American Fork City (AF) starting at the boundary between American Fork City and Pleasant Grove City at approximately 4400 West (CH) or1300 East (AF) and proceeding Westerly to their common boundary at approximately 4600 West (CH) or

### EXHIBIT "A" - PAGE 2

### **DESCRIPTION - CONTINUED**

1120 East (AF) (0.24 miles) and starting again at their common boundary at approximately 4650 West (CH) or 1070 East (AF) and proceeding Westerly to their common boundary at approximately 4730 West (CH) or 1020 East (AF) (0.11 miles) located in Sections 7 and 6 of Township 5 South, Range 2 East, Salt Lake Base and Meridian.

Also those portions of the existing PRC rights-of-ways within American Fork City starting at their common boundary with Cedar Hills at approximately 1120 East and proceeding Westerly to the common boundary with Cedar Hills at approximately 1070 East (0.07 miles) and starting again at the common boundary with Cedar Hills at approximately 1020 East and proceeding Westerly to the Highland Boundary at 900 East (0.09 miles) located within Sections 7 and 6 of Township 5 South, Range 2 East, Salt Lake Base and Meridian.

Also those portions of the existing PRC rights-of-ways within Highland City starting at 4800 West Street and proceeding Northwesterly to unincorporated Utah County at approximately 6150 West (1.91 miles) and starting again at a boundary with unincorporated Utah County at approximately 6400 West and proceeding Northwesterly to unincorporated Utah County at approximately 6920 West (0.87 miles) located within Sections 1, 2, and 3 of Township 5 South, Range 1 East and Section 34 of Township 4 South, Range 1 East, Salt Lake Base and Meridian.

Also those portions of the existing PRC rights-of-ways within unincorporated Utah County starting at the Highland City Boundary at approximately 6150 West and proceeding Northwesterly to the Highland City Boundary at approximately 6400 West (0.37 miles) and starting at the Highland City Boundary at approximately 6920 West and proceeding Northwesterly to the Lehi City Boundary at approximately 6950 West, located within Section 2 of Township 5 South, Range 1 East, Salt Lake Base and Meridian and Section 34 of Township 4 South, Range 1 East, Salt Lake Base and Meridian.

Also those portions of the existing PRC rights-of-ways within Lehi City starting at the boundary with unincorporated Utah County at approximately 1660 East and proceeding Westerly to State Road 92 at approximately 1500 West (2.70 miles) located within Sections 34, 33, 32, and 31 of Township 4 South, Range 1 East.

### EXHIBIT "B"

### GREENWAY AND TRAIL USE RULES

- 1. No motorized vehicles shall be allowed on the trail except wheelchairs and maintenance and emergency vehicles of the PRWUA, the County and the Cities.
- 2. No person shall be allowed to ride or operate any bicycle, "off road bike", skate board, roller board, or long board recklessly, negligently, or in an unsafe manner so as to endanger the life, limb or property of another person. All bicycles and other rolling items must be ridden in a safe manner, and under control while on the trail. Violators may be subject to fine or confiscation. Bicycles and other rolling items must yield to pedestrians when using the trail.
- 3. No person shall ride, drive, lead, or keep any saddle animal in a reckless or negligent manner so as to endanger the life, limb, or property of any person or animal. No person shall allow his or her saddle animal to stand unattended or insecurely tied.
- 4. All persons operating a gate shall close the same after passing through it.
- 5. Dogs must be leashed and kept under control at all times. Loose dogs can be hazardous to bicycles and runners. All dog waste must be disposed of in garbage cans or locations well away from the Greenway right-of-way.
- 6. Fire or fireworks are not permitted on the trail, the Greenway right-of-way or in trail head areas.
- 7. Cigarettes and cigarette butts must be extinguished and may not be discarded on or near the trail or the Greenway right-of-way.
- 8. Alcoholic beverages are not permitted on the trail, the Greenway right-of-way or in trail head areas.
- 9. Firearms, bows and arrows, and golfing are not permitted on the trail, the PRC right-of-way or in trail head areas.
- 10. Trail users shall remain on the trail at all times. Trail users shall walk on the right and pass on the left.
- 11. No littering shall be allowed on or around the trail and the Greenway right-of way.
- 12. The Greenway shall be closed from 10 p.m. to 5 a.m.